

[House Hearing, 108 Congress]
[From the U.S. Government Printing Office]

ENERGY AND WATER DEVELOPMENT
APPROPRIATIONS FOR 2004

HEARINGS
BEFORE A
SUBCOMMITTEE OF THE
COMMITTEE ON APPROPRIATIONS
HOUSE OF REPRESENTATIVES
ONE HUNDRED EIGHTH CONGRESS
FIRST SESSION

SUBCOMMITTEE ON ENERGY AND WATER DEVELOPMENT
DAVID HOBSON, Ohio

RODNEY P. FRELINGHUYSEN, New Jersey	PETER J. VISCLOSKY, Indiana
TOM LATHAM, Iowa	CHET EDWARDS, Texas
ZACH WAMP, Tennessee	ED PASTOR, Arizona
JO ANN EMERSON, Missouri	JAMES E. CLYBURN, South Carolina
JOHN T. DOOLITTLE, California	MARION BERRY, Arkansas
JOHN E. PETERSON, Pennsylvania	
MICHAEL K. SIMPSON, Idaho	

NOTE: Under Committee Rules, Mr. Young, as Chairman of the Full Committee, and Mr. Obey, as Ranking Minority Member of the Full Committee, are authorized to sit as Members of all Subcommittees.
Robert Schmidt, Kevin V. Cook, and Dennis F. Kern, Staff Assistants

PART 6
DEPARTMENT OF ENERGY

	Page
Environmental Management and Commercial Waste Management.....	1
Nuclear Waste Technical Review Board.....	115
National Nuclear Security Administration and Other Defense Activities.....	127
Defense Nuclear Facilities Safety Board.....	309

Printed for the use of the Committee on Appropriations

92-741

U.S. GOVERNMENT PRINTING OFFICE
WASHINGTON : 2004

COMMITTEE ON APPROPRIATIONS

C. W. BILL YOUNG, Florida, Chairman

RALPH REGULA, Ohio	DAVID R. OBEY, Wisconsin
JERRY LEWIS, California	JOHN P. MURTHA, Pennsylvania
HAROLD ROGERS, Kentucky	NORMAN D. DICKS, Washington
FRANK R. WOLF, Virginia	MARTIN OLAV SABO, Minnesota
JIM KOLBE, Arizona	STENY H. HOYER, Maryland
JAMES T. WALSH, New York	ALAN B. MOLLOHAN, West Virginia
CHARLES H. TAYLOR, North Carolina	MARCY KAPTUR, Ohio
DAVID L. HOBSON, Ohio	PETER J. VISCLOSKEY, Indiana
ERNEST J. ISTOOK, Jr., Oklahoma	NITA M. LOWEY, New York
HENRY BONILLA, Texas	JOSE E. SERRANO, New York
JOE KNOLLENBERG, Michigan	ROSA L. DeLAURO, Connecticut
JACK KINGSTON, Georgia	JAMES P. MORAN, Virginia
RODNEY P. FRELINGHUYSEN, New Jersey	JOHN W. OLVER, Massachusetts
ROGER F. WICKER, Mississippi	ED PASTOR, Arizona
GEORGE R. NETHERCUTT, Jr., Washington	DAVID E. PRICE, North Carolina
RANDY ``DUKE'' CUNNINGHAM, California	CHET EDWARDS, Texas
TODD TIAHRT, Kansas	ROBERT E. ``BUD'' CRAMER, Jr. Alabama
ZACH WAMP, Tennessee	PATRICK J. KENNEDY, Rhode Island
TOM LATHAM, Iowa	JAMES E. CLYBURN, South Carolina
ANNE M. NORTHUP, Kentucky	MAURICE D. HINCHEY, New York
ROBERT B. ADERHOLT, Alabama	LUCILLE ROYBAL-ALLARD, California
JO ANN EMERSON, Missouri	SAM FARR, California
KAY GRANGER, Texas	JESSE L. JACKSON, Jr., Illinois
JOHN E. PETERSON, Pennsylvania	CAROLYN C. KILPATRICK, Michigan
VIRGIL H. GOODE, Jr., Virginia	ALLEN BOYD, Florida
JOHN T. DOOLITTLE, California	CHAKA FATTAH, Pennsylvania
RAY LaHOOD, Illinois	STEVEN R. ROTHMAN, New Jersey
JOHN E. SWEENEY, New York	SANFORD D. BISHOP, Jr., Georgia
DAVID VITTER, Louisiana	MARION BERRY, Arkansas
DON SHERWOOD, Pennsylvania	
DAVE WELDON, Florida	
MICHAEL K. SIMPSON, Idaho	
JOHN ABNEY CULBERSON, Texas	
MARK STEVEN KIRK, Illinois	
ANDER CRENSHAW, Florida	

James W. Dyer, Clerk and Staff Director

ENERGY AND WATER DEVELOPMENT APPROPRIATIONS FOR 2004

Thursday, March 20, 2003.

ENVIRONMENTAL MANAGEMENT AND NUCLEAR WASTE DISPOSAL

WITNESSES

JESSIE H. ROBERSON, ASSISTANT SECRETARY FOR ENVIRONMENTAL MANAGEMENT,
U.S. DEPARTMENT OF ENERGY

DR. MARGARET CHU, DIRECTOR FOR OFFICE OF CIVILIAN RADIOACTIVE WASTE
MANAGEMENT, U.S. DEPARTMENT OF ENERGY

Opening Remarks

Mr. Hobson. The hearing will come to order.

The Subcommittee meets this morning to hear testimony from the Department of Energy on its budget request for Fiscal Year 2004 for Environmental Management and for Nuclear Waste Disposal. I welcome Assistant Secretary Roberson and Dr. Chu here today and, without objection, your prepared statements will be entered into the hearing record.

At our hearing with the Secretary of Energy earlier this month, I mentioned that I was very pleased with the efforts of Under Secretary Card and Assistant Secretary Roberson to streamline the cleanup of contaminated DOE sites. Just last Friday, I visited the Mound cleanup site at Miamisburg, Ohio, and I have to say that I am even more impressed to see firsthand what you all have accomplished. The 300-acre site has been performing a variety of atomic energy missions in Miamisburg since the 1940s, which is unbelievable to me that it was ever placed there to begin with. And come the year 2006, the DOE operation there will be closed completely, cleaned up, and the facilities and lands turned over to the local community.

To all those communities surrounding DOE sites who want to protect the status quo and who fear a future without DOE, I tell them to take a close look at Miamisburg. The community has achieved over 90 percent occupancy of the facilities already transferred from DOE and is anxious to have the remainder turned over to them. Of course, the local community wants to get the best possible deal from the Federal Government before DOE leaves, and I expect every other community around a DOE site will try to do the same. But I trust that Assistant Secretary Roberson will treat these communities fairly and consistently and will leave these sites in a safe condition while at the same time protecting the taxpayers' interest. We may not do everything the local communities want, but I am confident that we will do the right thing.

yucca mountain respository

I am not sure I have the same confidence that DOE will be able to fulfill its commitment to open the Yucca Mountain repository in the year 2010. It is not that Dr. Chu and her staff are not trying to do everything in their power to move the repository program forward. And it is not over any uncertainty that the country needs this repository, and it needs it now. To paraphrase the President's remarks from earlier this week, this is another situation where the price of inaction is far greater than the price of action.

But a number of things need to happen to keep this program on schedule. First of all, the Administration needs to either request additional funding in FY 2003 or to amend the FY 2004 budget request to meet the License Application milestone. Missing the License Application milestone or deferring other vital work such as transportation planning, are not acceptable alternatives to this Chairman of this committee. To address the long-term funding requirements of the program, the Administration needs to work harder to implement its proposed budget cap adjustment. So far, neither the House nor the Senate budget resolution incorporates this proposed change.

I don't want to absolve Congress of its responsibility for these funding shortfalls, as we have been a large part of the problem. Congress has consistently underfunded this program over the past 20 years. And I certainly don't want my remarks here today to be misinterpreted by those who only seek to obstruct this repository. It will be built, and it is one of my top priorities as Chairman of this Subcommittee to keep this program on schedule. The Administration and some in the other body may not like where we find the funding in our bill for Yucca Mountain, but we will do everything we can to provide the funds necessary to keep this vital program moving forward.

I want to tell you that my first visit, after visiting my home state area, will be to go to Yucca Mountain to take a look and see if we can't kick some things forward.

With that, our ranking member is not here, but, Mr. Edwards, do you have any comments you would like to make?

Mr. Edwards. Mr. Chairman, I just want to endorse your comments, and I know we have some votes coming up, so I look forward to the testimony. Thank you both for being here.

Mr. Hobson. Mr. Simpson, you have anything to say at this time?

Mr. Simpson. Go ahead.

Mr. Hobson. Okay. I think what we will do is you can give your testimony. We are going to have a series of votes. We are probably going to have to indulge on your time, if you wouldn't mind waiting around, and we will let the Members--they will probably filter in after that, and we will get some questions.

Before you start, I really was thrilled. I mean, I said to the newspaper--I don't know if you have seen the newspaper articles or not. But I said, you know, it is so refreshing to be a Government official and go to a Government site and not have people say, ``Gee, this thing is behind schedule. We just made a little mistake here and there is a cost overrun.'' That is most frequently what you hear.

I went to this site. There is enthusiasm about what they are doing. The community is enthused. They are going to get it done sooner than they thought and at less cost. Isn't that a--I

mean, that shouldn't be such an exciting thing to find out, but it is. And it is so refreshing. I must tell you, I came away absolutely excited about the possibilities for the future, excited about what you all have done. The people there really are motivated, and I think it is such a neat thing to have happen after, you know, so many years of, ``Oh, it is going to be forever.''

So thank you for what you are all doing, and you may summarize your testimony, and when the votes come, we will have to leave and then come back, because the time is really only 15 minutes now, so we have to get over there.

Ms. Roberson. I am going to speak very fast, Mr. Chairman.
Mr. Hobson. Thank you.

fy 2004 environment management budget request

Ms. Roberson. I could even speak fast and I could just say you have made a wonderful testimony for us, and that is our goal at each of our sites. That really is, and the job isn't done until you can go to any site in the EM program in this complex and receive the same kind of reception and the same kind of vision of what is happening at that site. That is our goal.

I will be brief. Mr. Chairman and Members of the Subcommittee, I am pleased to be here today to discuss President Bush's Fiscal Year 2004 budget request for the Department of Energy's environmental cleanup program. Eighteen months ago, Energy Secretary Abraham directed me to review from top-to-bottom the environmental cleanup program and uncover those obstacles hindering the efficient and effective cleanup of our sites. As you may be aware, the top-to-bottom review report was published just a year ago, and in it, it concluded that EM had lost focus of its core mission, which was to remedy the legacy of the Cold War's impact on the environment. We had to take immediate action.

With the top-to-bottom review as the blueprint for our transformation, we have aligned environmental cleanup focus from risk management to risk reduction and accelerated cleanup and closure. This was the intended mission for the environmental management program from the start. We have made remarkable progress this last year towards that goal and towards our goal of saving at least \$50 billion over the life cycle costs of the program and completing the program by at least 35 years sooner than previously estimated.

But we must not succumb to the idea that all problems are solved. The momentum we have gained must not be compromised or allowed to weaken. We have to stay the course. The actions and strategies we implemented, while producing key results, must be given the chance to further evolve, bringing even greater gains and risk reduction and cleanup.

IMPLEMENTATION OF ACQUISITION STRATEGY

Underpinning these strategies are several ground-breaking reforms that will propel us forward in our thinking and in our

actions. We are implementing a new acquisition strategy. We are aggressively using and managing the acquisition process as a key tool to drive contract performance and risk reduction results. We have established ten special project teams to carve new innovative paths for accelerated cleanup and risk reduction. Each team is formulating corporate-level initiatives and activity-specific actions to accelerate risk reduction further in a much improved, more cost-effective manner.

We have implemented a strict configuration control system that baselines a number of key critical program elements. Robust change control and monitoring of these key elements will facilitate a high confidence level that the direction of the accelerated cleanup initiative is on course and that our objectives are being accomplished.

The budget request before you is one of our most crucial reforms. This request, a cornerstone of our transformation, is a major step toward aligning performance with the resources needed to expedite risk reduction and cleanup. This budget request sets the foundation for budget planning and execution of the accelerated risk reduction and closure initiative.

Today, the EM program is still very much a defense environmental liability, responsible for the disposition of many tons of special nuclear material, 88 million gallons of radioactive liquid waste, 2,500 metric tons of spent nuclear fuel, 135,000 cubic meters of transuranic waste, and well over 1 million cubic meters of low-level waste. I ask the committee to stay with us as we continue our quest to eliminate risks posed by these materials at a pace few of us considered possible 2 years ago.

RISK REDUCTION IN CLEANUP

New ideas and breakthroughs have grown from looking beyond the paradigm of risk management to a new focus of risk reduction. We are experiencing the realization that for the first time, the goal of completing the current cleanup is within our grasp. We are at a turning point in this program. In spite of the challenges--and there are challenges ahead. Those challenges, by the way, existed from the beginning of this program. We did not create them in our accelerated cleanup plan, but we are taking them on and our momentum is building.

I ask for your support of our Fiscal Year 2004 budget request of \$7.24 billion to assure our impetus does not diminish. The Administration considers this program vitally important. We stand at an important crossroads for the cleanup program today. I believe the cleanup of the former nuclear weapons complex is far too important a matter to be left to chance. With your past assistance, we have laid a solid foundation that is already showing signs of early success. Moving forward, we need your continued support to achieve success.

Thank you.

[The prepared statement of Jessie H. Roberson follows:]

GRAPHIC(S) NOT AVAILABLE IN TIFF FORMAT

Mr. Hobson. Thank you.
Dr. Chu.

FY 2004 OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT BUDGET REQUEST

Dr. Chu. Thank you. Mr. Chairman and other distinguished Members of the Committee, I appreciate the opportunity to appear before you today. I have a more detailed statement. With your permission, I will submit it for the hearing record.

Exactly one year ago today, I had the privilege of becoming the fifth appointed Director of this office and the first Director since the President and the Congress, on a strong bipartisan vote in both chambers, approved Yucca Mountain as the site to be licensed and developed as the world's first repository for spent nuclear fuel and high-level waste.

In assuming this Director's position at that critical time, I realized that I had four significant challenges: first, to transition the Federal and contractor organization from a focus on site investigation to an enterprise with a culture of nuclear safety essential to obtaining a license from the Nuclear Regulatory Commission, and successfully construct and operate a repository; second, to work with Congress in developing the means of assuring stable funding needed to meet the formidable schedule for the development of the repository; third, to create a safe and secure transportation infrastructure needed to move nuclear waste and spent fuel from over 100 locations across the Nation; and, last, to challenge our scientists and engineers to find new and creative ways to enhance the operational safety and certainty and reduce the life cycle costs of the program.

The President's Fiscal Year 2004 Budget request reflects these changes I have implemented, and I appreciate the opportunity to present it to you today.

YUCCA MOUNTAIN LICENSE APPLICATION CHALLENGES

With the formal designation of Yucca Mountain, we prepared a detailed plan that will allow us to submit the license application by December 2004 and to begin placing waste in the licensed repository in 2010. Both the continuing resolution, however, and the reduction of \$134 million, which is 22 percent of our requested budget, from our FY 2003 request will force us to reduce, eliminate, or defer some of the work we have planned, thus significantly increasing the risk of not meeting our program goals.

The schedule is extremely tight and delay is very costly to our Government and, more importantly, the American taxpayers. For every year of delay beyond 2010, the cost of storing and handling defense waste alone is estimated to increase by \$500 million, and this figure does not include potential claims for damages resulting from the Government's failure to accept commercial spent nuclear fuel in 1998.

In the President's Fiscal Year 2004 budget, we have requested \$591 million for this program. As important, the Administration will propose, in discussion with Congress, a discretionary budget cap adjustment for the Yucca program as a provision to the Budget Enforcement Act reauthorization.

Beyond Fiscal Year 2004, our program will need significant increased funding for the design, construction, and operation of the repository as well as the transportation infrastructure. This proposed cap adjustment will allow the Appropriations Committee to provide sufficient funding for the program's needs without adversely affecting other priorities. This will provide us with a greater certainty of funding and ensure the proper and cost-effective planning and acquisition of capital assets required for such a major capital project.

I now would like to provide you with some highlights of our Fiscal Year 2004 request. We will focus most of these funds and efforts on completing and submitting a license application to the NRC and accelerating work on developing a national and Nevada transportation system. Let me briefly discuss these efforts.

The repository development activity constitutes over 70 percent of our funding request. The main focus will be on completing the technical products required for a license application. As part of the license application preparation, we will respond to key technical issues agreed upon between DOE and NRC, complete required elements of the design for waste package, surface and sub-surface facilities, complete pre-closure safety analysis and post-closure performance assessment of the repository system.

In addition, all of the documents from years of scientific studies to support the license application must be loaded into an electronic, Web-based licensing support network and be certified at least 6 months before the license application is submitted.

As part of the repository development, I am also requesting \$25 million for a new cost reduction and systems enhancement program. This program is focused on improving existing technologies and developing new ones to achieve efficiencies and savings and to increase our confidence in the long-term performance of the repository.

TRANSPORTATION ISSUES

Funding of this program will play a key role in our current effort both to achieve near-term cost savings and to reduce the total system life cycle cost.

For the transportation activities, we are requesting \$73 million. We will begin the initial procurement of the cask fleet and place orders for long lead time casks and equipment. Additionally, we will prepare for acquisition of transportation and logistics services and assess other needs. Requested funding also supports greater interactions and dialogues with regional, State, and local organizations to address the important transportation issues such as emergency response.

Of the \$73 million requested in the transportation program, about a quarter will be used to examine the development of a Nevada rail line to the repository. If a decision is made to pursue rail transportation, the Department must carefully analyze the environmental impacts of constructing a rail line within a particular corridor. Pending the outcome of this process, we will begin conceptual design activities, conduct field surveys, and pursue obtaining a right-of-way for the rail

corridor. We will also continue to assess the viability of other transportation modes.

These are the highlights of the Fiscal Year 2004 budget request for my office. In conclusion, our program is a key element of the Department's and the Administration's efforts to advance energy and national security, contribute to homeland security, and honor our environmental commitments. We now have the unique and historic opportunity of moving far closer to solving the nuclear waste problem by beginning in less than 8 years to move waste underground into the world's first licensed geologic repository. I urge your support for our budget request, and I look forward to working with you on this vital national issue.

I would be pleased to take any questions that the Committee may have. Thank you.

[The prepared statement of Dr. Margaret Chu follows:]

GRAPHIC(S) NOT AVAILABLE IN TIFF FORMAT

RAIL CORRIDOR CONCERN

Mr. Hobson. I am going to go to my ranking member, but first I want to make a little one- or two-sentence statement.

I want to get this rail corridor done, but I don't want to put it anywhere close to Las Vegas. Even if Las Vegas is cheaper, in my opinion--and I am going to stay around long enough hopefully to make sure we don't--I don't think it is prudent, I don't think it is smart business to put it near Las Vegas. And I will oppose--and I hope the Committee will join me in opposing--putting this near a population center like that. And I want to send that message to people early on. And I hope the Committee agrees with that.

Mr. Visclosky.

Mr. Visclosky. Thank you, Mr. Chairman.

Dr. Chu, I notice that you graduated from Purdue University.

Dr. Chu. My undergrad, yes.

Mr. Visclosky. Why didn't you stay in Indiana? [Laughter.]

Dr. Chu. I should have, huh?

Mr. Visclosky. Yes.

Dr. Chu. Because my boyfriend went to Minnesota.

[Laughter.]

RECOMPETITION OF ENVIRONMENTAL CONTRACTS

Mr. Visclosky. I will let you slide. My dad was born in Minnesota.

On environmental management, Madam Secretary, I am very concerned about the issue of competition, and I know you had management reforms last year as far as trying to accelerate the cleanups. Under those changes, how many of the existing contracts were recompeted and how many were modified?

Ms. Roberson. Okay. Sir, we have completed an evaluation of every one of our contracts, and we evaluated the right set of performance incentives included in those. Did we have the right

structure to carry that out?

Over the past year, we have competed three scopes of work: our salt waste processing at Savannah River; River Corridor at the Hanford site; and the Mound cleanup in Ohio. We propose to extend one contract--that was the West Valley contract--for a 2-year period. For obvious reasons, a 2-year period, the competition could likely extend longer than the amount of time to complete the work, and we thought the contract was performing satisfactorily, although we did modify the incentives to make sure that there were strict cost and schedule incentives in that contract.

The Oak Ridge contract, which had a built-in option for a conversion to closure, we are working with the contractor to see if we can come to agreement on specific cost and schedule incentives in that contract that would kick in that option.

We have not extended any other contracts. We do have other contracts that we will be competing, but we have no public statements on those, but we have a number that we will be competing.

We have other contracts where we have modified the incentives, either the contracts expire in 2005 or 2006. The clarity of the expectations and the alignment with the PMPs needed to be incorporated in this time frame, and so we have modified a number, but we have not extended the dates on those.

INSPECTOR GENERAL REPORTS ON CLEANUP CONCERNS

Mr. Visclosky. We have also had a number of Inspector General reports during the last year, and if I could just cite a couple of these: In April of 2002, there was a report in the 2,100 metric tons of spent fuel at Hanford and suggested that the Department may not meet any of the required milestones. In May, there was a report on Rocky Flats indicating that less than half of the 1,900 containers for shipment of plutonium would be produced by the target date, adding a cost of potentially \$6 million a month. A June 2002 report said that despite spending \$2.8 billion so far on the Fernald site, the Department has not requested adequate funds to ensure closure by 2006 and that there will be a 3-year slippage.

I understand obviously that the changes as far as these incentives are relatively new and the reports were issued last year. What is the situation as far as these particular sites and moving things along here?

Ms. Roberson. Okay. Well, we are focusing on resolving issue by issue, and we have plenty of them. We have recently completed a final adjustment to the Fernald contract that brings about what I believe is an absolute confidence in the fact that they are motivated to complete by 2006 and that the contract is aligned with that. It comes to an absolute closure point in that time period.

Mr. Visclosky. Do you think you have adequate funds to ensure completion by 2006?

Ms. Roberson. Yes, I do.

Mr. Visclosky. On Fernald.

Ms. Roberson. Absolutely. We have been working for it over the year. A new baseline was developed for that site. We have done our negotiating back and forth. I do have a great deal of

confidence. We are going to complete that project, and I would say----

Mr. Hobson. I am going to be there.

Ms. Roberson. When the Chairman goes there, if he doesn't receive the same reception that he received at Mound, then I will be going there right after him, because I think there is no reason that it shouldn't occur.

At Hanford and Rocky, the two issues--you know, and I don't--I will never say we have resolved every issue because every issue isn't resolved until the work is completed. The site--would you like for me to hold there?

Mr. Hobson. If you would, because we have only got 9 minutes, and I don't want anybody to miss the vote.

Ms. Roberson. Okay.

Mr. Hobson. We will just stand at ease for a few minutes and then come back.

Ms. Roberson. Okay.

Mr. Hobson. Thank you.

Dr. Chu. Thank you.

[Recess.]

Mr. Simpson [presiding]. The hearing will be back in order.

Mr. Visclosky.

Mr. Visclosky. Yes, I think we were talking about the----

Ms. Roberson. IG reports.

Mr. Visclosky. Right.

Ms. Roberson. Yes, okay. Fernald I think we had discussed. The two other reports that you cited, one was spent fuel removal from basins at Hanford and special nuclear material packaging at Rocky Flats.

In those two circumstances, we have special purpose engineered systems for removal and packaging. Those systems do indeed require a lot of care to maintain them operating to complete those campaigns. I am pleased to say in each case we are ahead of schedule. The IG, in regards to spent fuel at Hanford, said that we weren't going to make any of our milestones. Well, we did miss one milestone by one week. But I think that is a long way away from where we were 2 years ago, and, quite frankly, I am pretty pleased with our progress.

Mr. Visclosky. I am fine for now, Mr. Chairman. Thanks.

SCIENCE AND TECHNOLOGY REDUCTIONS

Mr. Simpson. First, let me say how much I appreciate working with you over the last year. Even though we have sometimes mild disagreements, you have always handled them in a very professional manner, and sometimes when you have been willing to listen to me and also stick to your guns, and I appreciate that very much. I know you have been very helpful to my staff, and I know you are handling a difficult job in a very professional manner, and I appreciate that very much.

Secretary Roberson, as you know, the EM science and technology account has seen a dramatic reduction in funding from 2002 to 2004. In fact, the account has gone from roughly \$262 million in 2002 to \$64 million in the fiscal year 2004 request.

I believe there is still a great need for the science work funded in this account to the support of the cleanup of sites

like Idaho. Do you believe the DOE now has access to all of the technologies that it will need to clean up sites like Idaho or Hanford? If not, do you believe the dramatic reduction in science and technology account will hinder your ability to develop new technologies to address these cleanup sites?

Ms. Roberson. Well, sir, I think that we have many of the technologies, that we have invested over the last 10 years and developed certain technologies we need. But in two specific areas additional technology needs exist and that is in groundwater monitoring, treatment, and characterization. We are working with the Office of Science as you know, to ensure that the Science Office and its environmental management leg of that organization can help us to continue to develop the needed technologies, primarily because they have the competency and the capability, and they also have the ability to maximize the use of those assets because they are not just looking at the environmental management sites.

We clearly have some technology needs. In the environmental management program, we are really focusing on deploying some of the technologies that we have invested in over the last 10 years, and working with the Office of Science to identify research and development needs for the future.

TECHNOLOGY DEVELOPMENT PROJECTS IN IDAHO

Mr. Simpson. I believe that in Idaho they have a lot of the expertise in developing these technologies that might assist in the cleanup. In fact, Idaho is the lead environmental management laboratory, and there doesn't seem to be any of the single science projects that they have been working on that are planned for funding for fiscal year 2004. Is that correct?

Ms. Roberson. I don't know that I can say that. I would like to--in the technology deployment program in EM, there clearly are projects at Idaho: groundwater specifically, I can't recall what else. But we clearly have projects that we will be deploying and testing technologies out. I can't speak to the R&D part of it. I don't know that offhand, but I would be glad to get back to you. I have to confirm with Science.

[The information follows:]

GRAPHIC(S) NOT AVAILABLE IN TIFF FORMAT

SPENT NUCLEAR FUEL PROGRAM TRANSFER

Mr. Simpson. I appreciate that.

This is a question, I guess, for either one of you. It is my understanding, Secretary Roberson, that you would like the Yucca Mountain program to take ownership of the national spent nuclear fuel program. Should Congress transfer this program to your office? And if so, have you given any thought to how much money we should provide in fiscal year 2004 to make sure that DOE spent nuclear fuel and high-level waste have a path forward in Yucca Mountain?

Dr. Chu. Do you want me to----

Ms. Roberson. Why don't you, since----

Dr. Chu. Okay. [Laughter.]

Dr. Chu. I believe the role of the national spent fuel program is very important, and I support this continuing mission. Jessie and I have discussed the possibility of transferring that program from EM to RW, and, frankly, we have not analyzed the situation in detail: what is the funding level, what are the activities, should there be a slight change in the scope. Jessie and I have agreed we are going to continue discussion in this area. Hopefully we will come to some conclusion.

Jessie, do you want to----

Ms. Roberson. The one thing that I would add is that Margaret and I have developed a very close working relationship. We actually live in the same end of the building on the same floor. I don't even go to the bathroom without passing her office. And so we have learned to work very closely together, and whether the program remains with EM or it moves to RW I think is really immaterial in the working relationship we have developed.

Mr. Simpson. Will there be or do you know if there will be additional funding requests or needs in order to transfer, should that occur?

Ms. Roberson. I don't believe we have any in the near term. I think we are watching the progress on the license, and any change in the funding for that would be a result of the needs identified coming from that process.

ADVANCED MIXED WASTE TREATMENT PROGRAM READINESS REVIEW

Mr. Simpson. Okay. Secretary Roberson, the advanced mixed waste treatment project in Idaho has completed construction and is now undergoing its readiness review. What is the status of that readiness review, and can you assure me that the project will remain on schedule?

Ms. Roberson. The readiness review, actually this week we have a small team out doing a review of a portion of that readiness review. The readiness review is to be completed at the end of this month. I am assured we are going to be able to accomplish that. Really, the next big step for that project, because it isn't done until they can start processing waste--to become certified to ship waste to WIPP. And that is, quite frankly, more in the hands of the contractor responsible for that project than for us. I think they understand the importance of it. The way the contract is set up, they don't make money until they process waste through it. So I think they are motivated. But I would leave it to them to demonstrate how motivated they are.

Mr. Simpson. That would certainly motivate me.

Ms. Roberson. Yes.

ACCELERATED CLEANUP PROGRAM FUNDING

Mr. Simpson. Secretary Roberson, the accelerated cleanup program agreed to by DOE and the various States assumes stable funding. However, I hear that OMB's support for the accelerated cleanup program may decline in fiscal year 2006. Can you assure me and my colleagues and the Governors across the country that DOE will request levels or increased funding for accelerated

cleanup in fiscal year 2006? Specifically, I believe the State of Idaho officials have been told in order to achieve the accelerated cleanup goals negotiated with DOE, the INEEL budget will increase in fiscal year 2006 when Rocky Flats is closed. Is that the case?

Ms. Roberson. I can't say that I understand that to be the case right now. The expected funding needed to fulfill the accelerated cleanup plan for this program does indeed decrease in 2006--2006 to 2008. That is because we are supposed to complete work, and at each site the funding is associated with completing activities. So I can't tell you right now what the specific funding profile for Idaho is, but I can assure you it is based upon the commitments to complete work in certain years. And I do believe that there is a decrease in 2006 at Idaho because certain things are supposed to be done at that point. But I can follow up with you with more details.

Mr. Simpson. I appreciate that.

Ms. Roberson. Okay.

[The information follows:]

GRAPHIC(S) NOT AVAILABLE IN TIFF FORMAT

ALTERNATIVES FOR INCINERATION FOR MIXED WASTE

Mr. Simpson. One other question. Secretary Richardson convened a blue-ribbon panel to propose alternatives to incineration for mixed waste at INEEL. I don't see any funding in the budget request for the alternatives suggested by the blue-ribbon panel, so how do you propose to remove this waste from the State of Idaho?

Ms. Roberson. Actually, this is another area of technology deployment. We work with the State to identify four candidate technologies that we will issue an RFP for demonstration on. We believe the blue-ribbon panel did indeed fulfill its commitments in identifying candidate technologies. We have evaluated that. We have worked with our regulators to narrow those candidates down, and during this fiscal year we expect to be choosing one or two to go the next step with.

IDAHO NATIONAL ENVIRONMENTAL AND ENGINEERING LABORATORY SUPPORT ON LICENSING APPLICATION

Mr. Simpson. Okay. Dr. Chu, when Under Secretary Card was before this Subcommittee last week, I asked him about the Department's intentions on the national spent fuel program and the INEEL's cooperation with Yucca Mountain, and Mr. Card indicated in his answer to me that he believed the cooperation between the INEEL and Yucca Mountain would be growing in the future. Can you tell me how the INEEL is supporting the Yucca Mountain licensing application effort and how you see that role going in the future?

Dr. Chu. Okay. Right now the INEEL is supporting our program primarily in the repository design and license application areas, and currently we have approximately \$5 million funding to INEEL. Our current plan is another \$5 million for 2004. INEEL represents a very important national resource with the unique capability, especially in the engineering capabilities. I believe that capability would

become increasingly important for our program as we move through the licensing phase into design and construction. And we do intend to leverage that resource.

Mr. Simpson. I appreciate that. One last question, if I could.

Mr. Hobson [presiding]. You are over five, but go ahead, real quick.

Mr. Simpson. It is a quick one.

CALCINE WASTE ACCEPTANCE AT YUCCA MOUNTAIN

Director Chu, the DOE is proposing to send high-level calcine waste from the INEEL to Yucca Mountain by putting it in a high-integrity container with some grout or cement. Do you believe that the Yucca Mountain waste acceptance criteria will allow calcine waste to be placed in the repository without treatment?

Dr. Chu. Our current Yucca Mountain waste acceptance criteria does not provide for untreated calcine waste. So it will not be included in our initial license application which we plan to submit in December of 2004. However, our Department is currently studying this issue, and there is a process to amend the license application, and in the future, these and other ways, need to be looked at whether it is acceptable waste or not.

As a licensee, our responsibility is to demonstrate to NRC that all waste disposed at Yucca meets the regulatory requirements. And Jessie and I have formed, like she said, very close working relations. We are working in realtime every month on an integrated way. I want to know what she is planning, and she knows she is not generating something that won't be accepted by Yucca Mountain. So I am hoping to work with her closely to resolve all these issues.

Mr. Simpson. I appreciate that.

Thank you, Mr. Chairman. I thought I had an extra five minutes when I started down here. [Laughter.]

SAFETY OF NUCLEAR STORAGE WITHIN THE U.S.

Mr. Hobson. Mr. Edwards.

Mr. Edwards. Thank you, Mr. Chairman.

Again, thank you both for being here and for what you do. Could I ask either you, Secretary Roberson, or you, Dr. Chu, whoever is interested in answering this, while we are developing the Yucca site, does the Department of Energy have direct responsibility for overseeing the safety, especially in this environment of potential terrorism, the safety of nuclear storage at our nuclear facilities or other facilities around the United States?

Dr. Chu. I believe that is the responsibility of the NRC to oversee that.

Mr. Edwards. Okay. So you have no responsibility for that part of it. Okay. Very good.

Mr. Chairman, the other questions that I have, I will submit in writing. I would like to defer back to you and the other Members of the Committee. Thank you.

YUCCA MOUNTAIN TRANSPORTATION ROUTES RECORD OF DECISION

Mr. Hobson. Thank you, Mr. Edwards.

I am going to ask a few questions here, and we will submit some for the record, too. I am going to go back to something I stated before because I wasn't sure we were going to get back to it, but I want to talk about this a little bit.

The Committee is convinced that the Department could defuse much of the opposition in Nevada if it would select a transportation route that clearly avoids the Las Vegas metropolitan area. Why is the Department waiting so long to make this critical decision? Either or both.

Dr. Chu. I think it is my question.

Mr. Hobson. It is either, I think. If you don't want to do it, you do it. [Laughter.]

Dr. Chu. Mr. Chairman, thank you very much for your comment and input on the rail situation and----

Mr. Hobson. Well, let me ask, do you favor rail over truck transportation in Nevada? And if so, why? Answer both of those at the same time.

Dr. Chu. In our environmental impact statement from last year, our Department had done detailed analysis of transportation modes, and then we came to the conclusion that we prefer mostly the rail transportation mode. But we have not made a final decision on the record of decision. What we would like to do is work with the State and local government and make sure we consider all of their concerns as we go forward. And we are doing a lot of planning internally, and when it comes to decision time, we will definitely fold in a lot of comments such as yours into our decision.

Mr. Hobson. Well, my problem is that the longer you defer this, the more political it has the potential of becoming, and that people get locked into things that they don't need to get locked into. And I think if the people of Las Vegas knew, had less fear about this coming through their town or near their town, I think you could take away a lot of the mistrust and fear that is there. So I would like to see you move up that decision.

I understand the cheapest rail corridor is the one called the Valley modified corridor that runs from north Las Vegas and generally follows along the Route 95 corridor to the repository site. I really want you to know that this Committee does not support any route through that area, which I have said three times now. But I want to know, do you need any Congressional direction on this issue, or will the Department have the good judgment not to recommend that route, even if it is the cheapest?

You don't have to take that one on right now, but I am trying to tell you, in the nicest way as I can, don't go there.

Dr. Chu. Sir, I very much appreciate your input.

Mr. Hobson. And I also think that the best route is through the Air Force base, and we are going to try to work to do that because cost-wise it is better, safety-wise for you it is better, and it is a secure area for you to move through. And I think we need to get the Government together to do that.

I hope you know what we are thinking after this point.

Dr. Chu. Thank you.

Mr. Hobson. Where in the Department is the Record of Decision for the repository transportation system? How long has the ROD been there awaiting approval or release? And when will the Department formally issue the Record of Decision?

Dr. Chu. Mr. Chairman, like I said, we are still evaluating these options and----

Mr. Hobson. You sound like the Corps of Engineers to me all of a sudden. [Laughter.]

Dr. Chu. And this is part of planning, and so I do not have a definitive timing. We will let you know as soon as we make that decision.

Mr. Hobson. You can rest assured I am going to keep asking, and you need to go back and talk to whoever you have to talk to about this and say, you know. Congress, I think, is interested in, much of the Congress, most of the Congress is interested in moving forward. There may be some people that are not, but I think we have got to get on with this, and the longer you take the more problems it could have, and frankly, the more expensive it is going to be.

FY 2004 FUNDING SHORTFALLS FOR YUCCA MOUNTAIN

The Department submitted an amended request for fiscal year 2003 of \$590 million and asked for the same amount again in 2004. The Conference Report for fiscal year 2003 provided you with only \$457 million, so you already start out short by \$134 million. If you cannot get this funding restored, what would be the impact on the schedule to submit the license application to the NRC in late 2004 and to begin a repository operation for 2010. You kind of touched on that problem.

Dr. Chu. Thank you, Mr. Chairman.

There are two elements to this question. The first five months during the continuing resolution, we have to defer some of the important activities that we planned, especially in the repository design areas. And then when the appropriate 2003 funding level fell short by 22 percent, we were faced with a question can we continue to defer some of those activities? Apparently, no. Then the question is, how do we do the trade off between all the activities we want to perform and still keep a viable program? We are very actively doing the impact analysis right now, so I do not have a definitive answer of what the impacts are, whether it is going to impact our December 2004 license application submittal date. However, I can say that I feel that this program is at high risk right now, because my duty as the Director of the program is to ensure that we can submit not only a license application but also a high quality license application based on the best science and engineering.

Mr. Hobson. Well, you need to either get into a supplemental or talk to somebody to get this back on track, and right now there is a train leaving the station. I do not know whether you have talked to OMB and whether your leadership has talked to them. I think this is critical, because it is going to impede the whole process down the road, and it is going to cost us a lot more money, and I think somebody over--I do not know whether it is politics. I do not know whether it is OMB. I do not know whether it is you guys, but here we are again, in

my opinion, not making the appropriate decisions or allowing you to make the appropriate decisions because of a lack of funding.

And I can tell you, I just went through a hearing. I have to remember what status I was in. I just went through a hearing, it was open. But I asked a question about buying airplanes, and one of our problems is our procurement process forces our equipment to be longer and more expensive, and United Arab Emirates is coming in and buying a better F-16 than we are able to produce for ourselves, and providing all the money to do all the upgrades and all the studies. I mean other than it looks like an F-16, it is not like the ones we are doing for ourselves. It is far more advanced because they have a lot better procurement process when they do it. And they funded it. When they say, ``Here is \$20 billion,'' you know you are going to get the \$20 billion, and it goes forward. We do not do that. It is one of the things that we have to look at our process here, because our process here is costing us, and will cost us in the future, and people will look back and say, ``Why did they do that?'' And that is actually what is happening in some of our military. I do not want it to happen here any more, so I hope your leadership and you all are saying, ``Can we get on this train for a little bit?'' Not that much money. To me it is a lot of money personally, but by the way we do these things, it is not that much money. But to me it is very critical to the future of this program, and the program is going to happen. The problem is it is going to be much more costly if we do not get this license done, so I urge you to do whatever you have to do to get on the train and steer so that we do not miss these dates.

Dr. Chu. Thank you very much. I very much appreciate your support, and I will take your advice and work on this.

Mr. Hobson. I am going to ask one more question, then we are going to--do you have any questions, Mr. Pastor.

Mr. Pastor. Yes.

STATUS OF ACCELERATED CLEANUP AGREEMENTS

Mr. Hobson. Okay. Let me just do this last one. The Department has invested a lot of political capital, not to mention a lot of appropriated funding in the new strategy, which I very much appreciate, on the cleanup of contaminated sites. However, this strategy is contingent on reaching agreement with the local communities and with Federal and State regulators, and the new acceleration approach makes more sense than the old way of doing business. Please tell us which sites have not yet agreed with the new acceleration approach, and summarize their certificate status, because we hear a little rumbling out there that not everybody is being cooperative in signing up at some of the local places, and again, we want to send some messages to folks, the old game is over; there is a new game in town that we need to work on.

Ms. Roberson. Mr. Chairman, we have, I am pleased to say, a limited number of issues, and as I stated in my opening statement, we recognize we are going to have challenges that we are going to have to continue to work on throughout the conduct of this program, and until an activity is done, it is not done,

and we are going to have issues.

Specifically, we do not have an accelerated cleanup agreement regarding the Paducah site. We are in negotiations. We are on a fairly, I believe, good path. I am confident that within the next 30 days, actually where EPA is working with us and we are on a pretty tight schedule there, that we will be able to accomplish that goal at the Paducah site.

Two other locations where we need to validate the accelerated cleanup strategies, and that is the Los Alamos and Sandia sites. As we were in the process of working with our regulators on the developmental review about performance management plans, there were compliance orders issued in the state, and they are near the issuance of the compliance order, and actually I am going to be visiting with regulators in New Mexico the first week in April to ensure that those support the PMP, and we think that we will be able to accomplish that.

We certainly have independent issues. We have some milestone changes that we still have to work with the State of South Carolina on. I am watching, in each of our states, all the regulatory issues, and I can tell you exactly what that list is, but it would bore you silly, because I actually know what our milestone commitments are in each state.

Mr. Hobson. You do not have to do it now, but it may not, because I want to come back and----

Ms. Roberson. I would be glad to do so.

Mr. Hobson. But is it correct that the sites which do not agree to accelerated cleanup will effectively move to the back of the line in terms of priority for receiving cleanup funding?

Ms. Roberson. The way the program was designed is there is a baseline program, which is keep the operation safe, and that is the Department's commitment. If we do not have an accelerated program, we will continue to fund the baseline program, but the additional funding that actually pulls the work forward requires regulatory support.

Mr. Hobson. Thank you.

Mr. Pastor.

Mr. Pastor. Thank you, Mr. Chairman.

Good morning. And before I start, let me compliment the Department of Energy. This is one of the rare occasions, rare occasions where we have people of diversity testifying, and I congratulate them because it needs to be noted, and welcome this morning.

MOAB CLEANUP DECISION OPTIONS

I am going to take you to one of your other favorite sites, one that is really important for those of us who live along the Colorado River. And it has gotten more interest, because as you know, we have Californians and Arizonans and Mexicans and Nevada, all are concerned about the Moab site. Now, in the last couple years, the output from the site has really begun to peak, and I think you have seen that by last year's appropriation. I think you were appropriate about \$4 million to begin addressing the issues of the site, and in the bill that they wanted you to come back with an informed decision by 2004.

And the problem has been, as I know it, that the National Academy of Sciences, in reviewing the proposal, have said that

you need more data to come back with a better decision, and I think that most of the preliminary decisions, or decisions have rested on a cover up of the site. And some of us think that maybe there may be a better solution than just capping the sites. As you work on achieving an informed decision or the environmental impact statement, have you considered the proposition that some have made, that possibly removing the tailings completely and taking them I think to St. George, and having them milled where there is a site that can mill such a waste, that this would not only solve the problem of the tailings leeching into the Colorado River, but actually would remove the radioactive material, waste material, and have it milled so basically you would have a large part of it being inert and used for other purposes?

Ms. Roberson. Well, sir, we are looking at a host of options, and I would say we have not predecided capping. I do not know today if our draft EIS is out, but we have certainly conducted public meetings, we have talked about the options to be captured in that, which is on schedule to be completed in 2004.

We are looking at removal to a host of locations in the general area that has experience and capability to handle those tailings. So we are looking at options. I cannot say that we are looking at an option to actually mill it. We are looking at disposal options at facilities that have the capability for that.

Mr. Pastor. I think the milling end of it would be to--I guess our responsibility would basically get it from the Moab site into a milling site, and the cost of removal and all that could be mitigated if milling was allowed and I guess whatever results from milling can be used for economic purposes, but that mitigates some of the cost of removal from Moab, and making a larger amount inert, and what other benefits you get from it, I do not know. But there are people that probably know that better than I do.

The only question is that \$2 million. So we went from about 900,000 to 4 million and now back to 2 million. So what is that going to do to your program and your desire of dealing with this site in Utah?

Ms. Roberson. The decision, the forward-looking decision would be made in 2004. The additional funding that Congress provided this fiscal year should be adequate, should just about be adequate for completing the environmental impact statement process, as well as allows us to accelerate our groundwater data collection in response to the NAS. So we do believe we have requested adequate funding, and then the actual decision, which we do not have yet, we certainly could not ask for funding until we have that decision. We can estimate the cost.

Mr. Pastor. So it would be \$4 million this year, 2003, and then the request for 2 million, you think that allows you enough resources?

Ms. Roberson. Right. And in addition to that, we have also implemented mitigation activities to ensure that there is no further contamination while that environmental impact assessment is occurring.

Mr. Pastor. And I think to date no one has shown that there is contamination but it is a future risk, a potential risk that

we are trying to address.

Ms. Roberson. That is exactly right.

Mr. Pastor. Well, if you need some help, let us know, because I think Congress, at least this Subcommittee, has shown that its concern about this site by the level of funding that you have gotten in the 2003, and I am assuming the level of funding that you will get in 2004, because the risk of contamination and the harm it may do to millions of people along the Colorado River, it is a very serious threat, and we want to work with you to solve this problem.

Ms. Roberson. Thank you.

Mr. Pastor. And thank you.

Mr. Hobson. Thank you, Mr. Pastor.

Mr. Visclosky.

LINE ITEM CONSTRUCTION PROJECTS

Mr. Visclosky. Thank you, Mr. Chairman.

Madam Secretary, on construction projects, in your statement you say that the Department is looking to limit the inclusion of line item construction projects as activities for separate authorization and funding. Could you explain that decision and what you hope to gain, and what types of projects, and what size? Because I am very apprehensive about that decision.

Ms. Roberson. Okay. In our proposed budget structure, what we actually propose is reporting and monitoring on the large majority of the funding that goes to the environmental cleanup program. In our view, the environmental cleanup program itself is a project that requires the Administration, and Congress, the visibility, to focus on the accomplishment of certain results. We still do have some construction line item projects that will be reported. What we looked at were construction line item projects that were interim activities. For instance, one example would be the construction of a waste removal on a tank, and there are tank farms either at Savannah River or Hanford. We think the project reporting should be focused on how much liquid is actually removed and in what time frame, and that the methodology for removing it should have the flexibility to apply innovation and lessons learned from site to site. And accelerating the program, it really shortens the amount of time for planning construction line item projects out.

Mr. Visclosky. What would the cost of that project be specifically, about, a couple million, couple billion?

Ms. Roberson. For constructing a waste removal on one tank is really what we were monitoring. I do not know. Maybe a couple million, 5 million, and we do as many of those as we have tanks. In this change we are not proposing not having the visibility of the work getting done. What we are proposing though is to focus in on the actual work that gets done, rather than interim steps of constructing a frame on top of a tank, at what pace, and how much liquid gets removed from the tank, because that is the thing that reduces the risk to the environment.

Mr. Visclosky. You mentioned some will still be reported.

Ms. Roberson. Right.

Mr. Visclosky. ``Some'' would imply to me less than half.

Ms. Roberson. Well, I do not know if it is less than half. I know the vitrification plant at Hanford certainly remains. That is a huge project.

Mr. Visclosky. That is 4.5?

Ms. Roberson. Yes, that is the biggie. Glass waste storage facility at Savannah River, the depleted uranium facilities at Portsmouth and Paducah, I do not recall.

Mr. Visclosky. On this I would defer to the Chairman's position, but I think for us to make a decision, given our responsibility as far as oversight, and particularly on construction projects, if we could have a side by side, comparing what is not in this year for construction purposes as opposed to what would have been had you not made the change, I think that would be very helpful to us to make a determination as to whether or not we would be agreeable to it.

Ms. Roberson. I think we can do that. I think we have probably done that for staff, and we would be glad to provide it.

[The information follows:]

FY 2003 LINE ITEM CONSTRUCTION PROJECTS REQUESTING ELIMINATION
[Dollars in millions]

Project Title/Location	Former Project Number
Initial Tank Retrieval Systems Hanford.....	94-D-407
Tank Farm Restoration and Safe Operations, Hanford.....	97-D-402
High Level Waste Removal from Filled Waste Tanks, Savannah River.....	93-D-187

* FY 2004 is final year of funding requested for the project.

YUCCA MOUNTAIN TRANSPORTATION ROUTES AND FUNDING

Mr. Visclosky. That would be terrific.

On transportation, I have a series of questions on that, and I would be brief. But I represent a district where if you want to get around the largest body of fresh water on the planet earth, you have to drive through my district. And every rail line and every major interstate going around the Great Lakes goes through the First Congressional District of Indiana. And on a very regular basis, those who might have questions about Yucca certainly excite people as far as the dangers in nuclear explosions that will be regularly takingplace in the First Congressional District once transportation starts.

And my question would be, as far as your 2004 funding, are you funded to make sure that the transportation component of Yucca would be on track for an opening at 2010, or are we short in 2004?

Dr. Chu. This is part of the analysis I am doing right now. With the 2003 shortfall, how does that effect Fiscal Year 2004? The transportation program has been--we would like to use the words ``has been'' in a coma for years because the higher historical funding shortfall situation, and then our plan, starting from 2003, will really start gearing up the transportation program so we can catch up and make the 2010.

And in our plan----

Mr. Visclosky. But you have a shortfall in 2003 then as well?

Dr. Chu. We have a shortfall in 2003, yes.

Mr. Visclosky. And how much is that shortfall in 2003?

Dr. Chu. The whole shortfall is \$134 million which is 22 percent. This does not represent the whole amount for transportation, but it is still significant.

Mr. Visclosky. That would be a subset of the 134?

Dr. Chu. Right, it is a subset of that, yes.

As one of the critical elements we would like to do is not only select corridors or routes, but also prepare to purchase casks. Because of the variety of waste that will be coming into Yucca, there is a whole spectrum of casks needs. Some of them we already have. Some of them we do not. So when you talk about a brand new design, from the beginning to the end it takes probably five to six years to get the right cask to be certified and get ready. Even for an existing cask that has been certified, it takes about two years. So it takes a lot of planning to make sure all the logistics, everything is lined up. Then on top of it you have to get all the equipment serviced. You have to decide how to maintain your equipment, and then the transportation fleet--the operations, the drivers, the operators, and tracking system. So in conclusion, we have a lot of work remaining, but a big part is working with each State and the local governments, and make sure they are part of the whole planning. So I take your question very seriously. Then as part of our planning, we are working very aggressively on that. And with the current funding situation it gets more and more difficult.

Mr. Visclosky. And I think it is an important component, because obviously you have to be governed by a factual situation, by the science involved, but there clearly is a political issue, multiple political issues here. And for those who support the repository, a decision has been made. It becomes more difficult as people agitate, and people will continue to attempt to do that. But to the extent then State and local officials cannot come back and say, Listen, we have been contacted, and let us assure you because we can tell you how safe this is going to be, and this is also temporary, what the process is going to be. So I think it is an important element, even though physically it may not be sited within the State of Nevada.

Dr. Chu. Another thing I want to add is in the past years the Department has had cooperative agreements with a lot of the State agencies, and we have been funding a variety of cooperative agreements with many, many states and regional organizations too, and we will continue to work in that aspect. Then what we plan to do is follow the WIPP model, which is to spend a lot of time and energy working with all the States and local governments. Apparently it is a very successful model, and that is going to be a model we will be using for Yucca.

Mr. Visclosky. I do attach a lot of importance, and as the Chairman pointed out, there will be a supplemental, and we certainly encourage you to work from your end to make sure that there is a request.

Dr. Chu. Thank you for your support.

Mr. Hobson. I believe Mr. Simpson has one question.
Mr. Simpson. I have two quick ones. I lied to you.
Mr. Hobson. They multiplied. [Laughter.]
Mr. Simpson. I apologize.
Mr. Hobson. I know, guys, they multiply.

SHIPPING CASKS CERTIFICATION

Mr. Simpson. I do not know how to take that.

Dr. Chu, you mentioned that it takes five to six years to design and certain a new shipping cask. We currently ship nuclear waste, spent nuclear fuel all over the country, in fact, all over the world. Why in the world does it take so long to design a new cask, a new shipping cask? That seems bizarre to me.

Dr. Chu. Because it needs to be certified by NRC, so you have to go through a whole process on design, and then on the quality control, and then you have to test them. You have to be certified.

Mr. Hobson. Can you tell me how the French do it?
[Laughter.]

Mr. Simpson. Put it in bottles of wine.

Mr. Hobson. Because they move this stuff around, do they not? Do they not have casks?

Dr. Chu. Yes, but I am not sure how long it takes the French to do it. Let me put it this way, once it gets certified, every two to three months you can crank out more, so it is the initial. But for casks that have already been certified, when you manufacture from fabrication to certify a whole bunch more, it still takes two years. So five to six years is brand new design. That is what I am talking about.

Mr. Simpson. That just seems incredible to me in terms of-- well, I guess it does not. It is kind of a governmental obligation.

Mr. Hobson. If the gentleman is finished, we are having a little trouble with this on the technology. Pete, you want to?

Mr. Visclosky. I missed that. I am happy you brought that up. Are there new requirements with the new casks? I had not even thought about that aspect of it.

Dr. Chu. No, they are not new requirements. Every waste has special requirements. Some of the waste coming will be coming from Jessie's environmental program. They have special requirements of the size and so on, that has never been manufactured before.

Mr. Visclosky. Which would not necessarily be the ones that Mr. Simpson is alluding to, so there would be a change?

Dr. Chu. Right. So it depends. You know, some of the things from Idaho, it is a different story. So this is a site specific situation, and then that is part of our assessment right now, and to assess across the country what are the needed casks, when we should do what so we can start receiving them in a logical and the most cost effective and most efficient manner.

Mr. Simpson. This is starting to sound like the \$700 toilet seat. And I had hoped that we--this is taxpayer money that we are spending. It just seems strange to me, and not being a scientist in the area, that there are not casks that are available that have been certified, that could be modified and

that type of thing that could actually function.

Dr. Chu. There are some that are available. I do want to mention that.

Mr. Pastor. Would you yield?

Mr. Hobson. Would the gentleman yield? Mr. Pastor would like to ask something.

Mr. Simpson. Sure.

INTERNATIONAL SHIPPING CASKS AVAILABILITY

Mr. Pastor. Right now the Japanese are shipping spent fuel from Japan to Britain and France, and I think there is other countries that are shipping these over many miles. Is that the highest quality of radioactive material that you would find being shipped around the United States?

Dr. Chu. NRC has a specific requirement to certify in the U.S. for U.S. shipments, which I believe are not the same as the international.

Mr. Pastor. Do you think an America company could, even under these days and times, look at the containers that are being used to ship radioactive spent fuel across the Pacific Ocean and into France, into England, that maybe that might be something that we could use in this country? How many times do we have to----

Mr. Hobson. Build a new widget.

Dr. Chu. Understand, yes, appreciate your comment.

Mr. Pastor. What is your response? Let me ask that question?

Dr. Chu. Well, I think a lot of the cask manufacturers, actually they do make casks for U.S. as well as for international demands, so they are totally aware of what is going on on a global scale, so yes, they are part of this whole cask manufacturer world.

Mr. Pastor. But the casks have been moving across the Pacific for at least 10 years, probably closer to 15 years.

Dr. Chu. Right.

Mr. Pastor. So you would think by now we would get it or do it.

Dr. Chu. Thank you for your comment. There are different casks that we need. There are certain types of casks, in existence, that are available, and so we do have the capability to use them. But there is only a fraction of the other needs. So we still have to get ready for all these other types of casks which are very specific in our situation. Some come from EM's needs. Some from certain commercial sites. They have specific needs. So we have to consider all of the needs.

I would say to Mr. Simpson, to answer your question too, we are fully aware there are certain types of casks that are available, but it is not all we need, so we still have to get ready for the rest of the needs which are actually quite a bit, quite a bit of demand in that.

INTERNATIONAL STANDARDS FOR SHIPPING NUCLEAR MATERIALS

Mr. Simpson. Is there an international standard for shipping requirements? In other words, if Japan ships waste or certain nuclear fuel to England, could that standard be

different than what is required in the United States?

Dr. Chu. I think they are not exactly the same. They are probably similar, but I know there are differences. Maybe, Jessie, you could?

Ms. Roberson. No. I would say there are differences. For instance, any that we receive in this country has to be packaged according to our requirements, which are not necessarily the same in other countries.

Mr. Simpson. It would be nice to have an international standard since we have the wastes of 41 other countries here, and I am sure it is going all over the rest of the world and between countries.

LEGAL OBLIGATIONS FOR CLEANUP AGREEMENTS

My last question. Secretary Roberson, does the fiscal year 2004 budget request enable the Department to meet all of its legal obligations under existing agreements, court settlements, and regulatory orders and agreements, and if not, could you tell us which specific areas will not be in compliance and the legal and financial consequences of noncompliance?

Ms. Roberson. Mr. Simpson, I believe it does enable us to meet all of our legal agreements.

Mr. Simpson. Thank you.

Mr. Hobson. Mr. Visclosky.

DUAL USE SHIPPING CASKS

Mr. Visclosky. Thank you, Mr. Chairman.

If I could return to the casks for a second. My impression would be for some of the EM sites you would have very discrete, unique needs. But you also have a lot of spent fuel canisters at various civilian sites around the country. And as I understand it, utilities have been forced to develop dry storage facilities, and in the public interest has taken into consideration the compatibility and adaptability of various canister technologies. The use of compatible systems would benefit all stakeholders and assistants who reduce cost, minimize risk and efficiency, but as I understand it, the Office of Civilian Radioactive Waste Management continues to be open to discussion about using utility-owned systems, and the Department continues to be noncommittal. Do you intend to accept the spent fuel in existing casks?

Dr. Chu. Some of the storage casks, are dual use casks. That means they work for both storage and transportation. If they satisfy the NRC requirements as a transportation cask, yes, we will take them.

NRC cask certification program requires every five years you need to recertify. So we have to continuously update all of this information as a whole.

Mr. Visclosky. So for the dual or multi-purpose casks we will be okay.

Dr. Chu. I believe so, yes. If I am incorrect, I will correct it later for you.

Mr. Visclosky. Is that primarily the type of casks that are used in the civilian sector, or are there variances there too?

Dr. Chu. I would take that question for the record because

I am not sure of the answer.
[The information follows:]

Dual Use Casks

For the record, let me correct my previous statement. The Department's position is that multi-assembly systems are not covered by the contract between the Department and the utilities, and are thus not considered an acceptable waste form, absent a modification to the disposal contract. The Department believes that some benefits may accrue to the overall waste management system by the use of such multi-purpose storage/transport/disposal systems. The Department has stated its willingness to initiate the appropriate actions to include such systems under the terms of the disposal contract. The Department believes the best approach is to pursue an overall modification to the disposal contract, which would involve several issues, including acceptance of multi-assembly canister systems. Unfortunately, due to ongoing litigation between the parties to the disposal contract, the Department is limited in what it can presently do.

Mr. Visclosky. And my assumption from the discussion we have had today, is if it is not dual use, there is a more substantive question as far as the permitting then. Okay.

Dr. Chu. Okay.

Mr. Visclosky. Thank you.

CLEANUP TECHNOLOGY DEPLOYMENT

Mr. Hobson. Do you share the cleanup technology or have any conversations with DOD on the kinds of things that they are getting rid of and how they may get rid of them versus how you get rid of them, so that you all are doing it in the most cost effective manner and you are not tripping over each other, when there is a technology they have that maybe you are not using, or you have a technology that they are not using? Is there any program like that going on?

Ms. Roberson. Actually, there is. In addition to managerially sharing ideas, looking even at contracting strategies and the technology in our technology development and deployment arena, usually many of those initiatives are cosponsored with DOE and DOD as the normal partners.

Mr. Hobson. Is Dr. Fiore involved in that?

Ms. Roberson. I do not know if that is under Mario Fiore specifically. Usually we work with, well, my counterpart obviously is Mr. Woodley, that is usually who I work with, or the Corps of Engineers. I do not know if that function falls under Mario Fiore.

Mr. Hobson. Do you know him?

Ms. Roberson. Very well, very well.

Mr. Hobson. I am just concerned about that because there is something else here--not in your area--that I find that four or five different people are looking at, and I am not sure they are all communicating, and I want to be sure that we do, because I use to follow that. I am on Defense, and when I was MilCon Chairman, we got into some of this stuff too. So I am just concerned that we all have a dialogue, where we are getting the best and lessons learned from each of us.

Ms. Roberson. I think the technology area is one that is pretty exemplary. I mean there are actually technologies that we have plans to deploy that DOE made no investment in. I mean we actually have a very active dialogue with DOD when it comes to environmental technologies.

Mr. Hobson. Well, does anybody else have any questions to ask? Let me say this to you. First of all, I am, as I said in the beginning, I am really pleased and thrilled to see the attitude change on the things, and let me tell you, you two are a great team. I would not want to run up against you guys out there if I were on the other side. You are good. You are a credit to this country. We appreciate everything you are doing. We want to help you. We do not want to be your adversary, and I hope you do not look at this committee as your adversary. We are here to get this stuff done. I think we have the same goals and objectives, and I will not be this nice if it does not work, and if you see me in other committees you know we can be very exacting. But I want to say when people do the right thing and are trying to do the right thing, how much we appreciate it. And we need to say that to you because there is a difference in attitude out there, and I think I share the whole committee's attitude when I say thank you on behalf of this committee and this country for what you two are doing.

Dr. Chu. Mr. Chairman, thank you very much, and I want to say this from the bottom of my heart, it is support such as this that keeps us going. Thank you.

Ms. Roberson. Absolutely. Thank you.

Mr. Hobson. The hearing is adjourned.

[The questions and answers prepared for the record follow:]

GRAPHIC(S) NOT AVAILABLE IN TIFF FORMAT

Wednesday, March 19, 2003.

NATIONAL NUCLEAR SECURITY ADMINISTRATION

WITNESS

LINTON F. BROOKS, ACTING UNDER SECRETARY OF ENERGY AND ADMINISTRATOR
FOR NATIONAL SECURITY, NATIONAL NUCLEAR SECURITY ADMINISTRATION

Mr. Hobson. The Committee will come to order.

Pursuant to the vote of this Subcommittee on March 5th, 2003, today's hearing on the Department of Energy atomic energy defense activities will be held in executive session. Ambassador Brooks, can you verify that everyone in the room has appropriate security clearance?

Ambassador Brooks. Everyone from NNSA and the Department of Energy, yes, sir.

Mr. Hobson. For the Members of the Subcommittee and any staff attending, I would like to remind you that some of the information discussed today will be classified and should not be discussed outside this room.

I would also ask that you turn off all cell phones, which I hope I did.

Unless Mr. Visclosky has any opening remarks, we can proceed to the Ambassador's statement. We're getting a little late start.

You may proceed.

Ambassador Brooks. Thank you.

I want to start by thanking the Subcommittee for its strong support in the past.

I have a detailed written statement which I would like to submit for the record and summarize now if I may, sir.

NNSA MISSIONS

We have, as you know, several complementary missions. We provide a safe, secure and reliable deterrent; implement the Nuclear Posture Review; reduce the threat posed by proliferation of weapons of mass destruction. We take care of security at our own facilities, we are reinvesting in the nuclear weapons infrastructure, we are supporting the nuclear propulsion needs of the U.S. Navy, and support the President's management agenda and move toward more effective and efficient government.

NNSA BUDGET REQUEST

Our Fiscal year 2004 budget request to do all those is \$8.8 billion. This is a growth of about 11 percent over the enacted 2003 budget and is consistent with the planned outyear funding in our Future-Years Nuclear Security Program. As I will mention later, we are pleased that we are starting to get a more predictable and stable program to present you.

STOCKPILE STEWARDSHIP

In weapons activities, we are requesting \$6.4 billion for stockpile stewardship. I am pleased that we are continuing to be able to certify the safety, security and reliability of nuclear weapons without underground nuclear testing. Using engineering and scientific tools and laboratory tests, we are getting a better technical understanding of the stockpile each year, but the challenge of certifying becomes more difficult each year we get farther away from nuclear testing. New tools that this budget will support should allow us to continue our certification efforts with confidence. Although I want to emphasize I have no reason to doubt our current ability to ensure the safety, security and reliability of the nuclear weapons, we have to maintain our ability to carry out a weapons test in the event some unforeseen problems arise that cannot be resolved by other means.

NUCLEAR TEST READINESS

Last year, we concluded as part of the Nuclear Posture Review that we should improve our readiness posture from the current ability to test within 24 to 36 months to an ability to test within about 18 months. Both the 2003 and 2004 budgets support this effort. The transition will take about 3 years.

ADVANCED CONCEPTS

Last year's Nuclear Posture Review also highlighted the importance of pursuing advanced concepts work to make sure that

we are ready for whatever challenges may come in the future.

This budget requests \$21 million for advanced concepts. \$15 million of it is for a study on what is called the Robust Nuclear Earth Penetrator. That study, pursuant to congressional direction, will begin 30 days after you receive a report from the Department of Defense, which to my understanding was transmitted this morning; and it will look at whether or not, without resorting to nuclear testing, we can modify two existing warheads and harden them so that they can penetrate into the earth.

I want to stress that this is a study and that our advanced concepts work is just that, advanced concepts. We have no requirement to actually develop any new nuclear weapons at this time.

STOCKPILE LIFE EXTENSION

We are extending the life of several existing weapons through the Life Extension Program. That program is going well. We are more than three quarters through the extension of the W87, one of the ICBM's warheads; and we should complete it by early 2004. We will be delivering the first of the life extended weapons for the W76, W80 and B61 in 2007 and 2006.

We have also been working to put certain capabilities back into place. One is the ability to produce tritium. Late this year we will start tritium production when we put tritium producing burnable absorber rods into a TVA reactor. We have readjusted the requirements.

Mr. Hobson. I have got some tritium barrels at, I think, in Dayton that I could deliver to you if you need them. We are trying to get rid of them some place.

Ambassador Brooks. Your support as always is welcome, Mr. Chairman.

What we are going to do with this capability is we are going to make sure we actually have it.

Mr. Hobson. It may be thorium and not tritium.

Ambassador Brooks. Ah. I am less enthused about that, sir.

We are going to adjust the outyear production once we are sure we can manufacture tritium to only manufacture it, obviously, as required by the stockpile.

The committee is aware that our Tritium Extraction Facility (TEF) in South Carolina has experienced cost and schedule problems. We have approved a change that increases the cost from \$401 to \$506 million and delays the project from mid 2006 to late 2007. I can discuss in the questions some of the reasons for that, but we are confident that the problems are behind us and that these revised milestones are ones that we will be able to deliver on.

PIT MANUFACTURING

Another capability that we are looking at reinstituting is the ability to manufacture new pits for nuclear weapons. We have never done this without nuclear testing, so I am very pleased that we are on schedule to produce later this spring the first certifiable pit that we have made in the United States since Rocky Flats closed in 1989; and Los Alamos will

make an actual war reserve pit by 2007.

Over the long run, however, we can't depend on a national laboratory to manufacture pits. So the budget supports the early stages of developing a so-called Modern Pit Facility, which will not actually be in place until late in the next decade, but during this year we will work on the environmental analysis and conduct the site selection.

INFRASTRUCTURE

The President's Nuclear Posture Review gave emphasis to infrastructure, equal billing with emphasis to weapons themselves. That is consistent with the idea that we need to be able to sustain our much smaller deterrent over the long haul.

We have two complementary accounts. We have Readiness in Technical Base and Facilities, which is our enduring account that will last forever. Then we have a Facilities and Infrastructure Recapitalization Program, which is a get-well program that some time in about 10 years should vanish. The get-well program is stabilizing the backlog of deferred maintenance and helping to restore the complex to health for the long-term.

These efforts are absolutely crucial, and I urge the committee to support them.

Let me turn to nonproliferation. We are requesting \$1.34 billion for defense nuclear nonproliferation. With two exceptions our request is essentially the same as last year and is covered in detail in my written statement.

Last year, at the President's request, Secretary Abraham sought Russian agreement to find a way to dispose of additional weapons materials. We are nearing agreement on purchasing Russian highly enriched uranium for U.S. research reactors and on purchasing uranium that originates in Russian weapons for a strategic uranium reserve. That is one of the new things in the program. There is \$30 million requested for that.

The biggest increase between 2003 and 2004, however, is related to disposing of weapons grade plutonium. As you know, we and the Russians have both agreed--each agreed to dispose of 34 metric tons of weapons grade plutonium, enough for about 8,500 nuclear weapons, by irradiating it as a mixed oxide fuel in existing nuclear reactors.

Mr. Hobson. Ambassador, do you know yet where you are going to stockpile all that stuff, the stuff you are buying from the Russians?

Ambassador Brooks. No. I think I know, but I haven't settled on it. I think that it is--it will be at an existing facility, and the most obvious place would be Y-12, but we haven't made that a firm decision yet.

The Russian program has had its share of problems. The Russians have decided to use the U.S. design for their fabrication facility, which should allow their program to continue; and I expect both facilities will start construction some time during fiscal year 2004.

Although it doesn't involve a change in our budget request, I also want to highlight one other nonproliferation program. Last year, I assumed responsibility for eliminating Russian plutonium production. There are three Russian reactors that now

produce weapon plutonium. They also produce heat and light for the adjacent region. So what we have agreed to do is construct fossil fuel plants so that the reactors can be shut down in total.

This committee raised questions last year, correct questions, on our management approach. As a result of those concerns, we are revising our plans. Previously, we had been using a national laboratory as an integrating contractor, essentially. We will shortly select competitively from among a number of prequalified firms through the Department of Defense an integrating contractor that has both extensive experience in fossil fuel power plants and extensive experience in Russia.

Turning to naval reactors, we are requesting \$768 million for the Naval Reactors Program, which continues to be a prime example of how one should manage unforgiving and complex technology. Naval Reactors Program, as this subcommittee knows well, supports nuclear-powered submarines and carriers on station around the world. That is obviously of particular relevance as we sit here today.

In 2004, naval reactors will support 103 reactors and 82 nuclear-powered warships, including the first of a new class when the USS VIRGINIA goes to sea.

Naval reactors will also continue to design and develop the reactor for the transformational carrier CVN-21. The requested budget increase will allow the beginning of development of the transformational technology core which will use advanced materials to achieve a substantial increase in core energy, resulting in greater operational ability and flexibility.

The budget increase will also allow maintenance and replacements of some of the program's 50-year-old infrastructure as well as environmental remediation at sites no longer in use, continuing the naval reactor's ``clean-as-you-go'' policy.

Key to ensuring the health and safety of all of these activities is safeguards and security. The focus is on protecting people, information, materials and infrastructure.

Immediately after the terrorist attacks in September of 2001, my predecessor initiated an increase in our security posture. I am very comfortable as we sit on the brink of war with the security of the complex. But most of that increase was in physical protection, basically, more guards; and, as we look to the future, physical protection will become more complicated and more costly. So the budget we have submitted to you would initiate a modest research and development effort to begin to use technology more effectively to maintain and improve security while reducing guard force staffing and overtime.

FEDERAL WORKFORCE

Finally, the budget requests \$348 million for the Federal workforce in headquarters and in the field. That is what provides corporate direction and oversight. Naval reactors and our secure transportation assets are separately funded in other program direction accounts. Our budget request reflects declining staffing levels, but it also reflects about \$16 million for reengineering and relocation associated with the new organization which I will talk about in a minute.

MANAGEMENT CHALLENGES

Let me conclude by talking about some of the management challenges and successes that the National Nuclear Security Administration is facing. The most obvious challenge has been the ongoing problems at Los Alamos National Laboratory, which this subcommittee discussed with the Secretary of Energy. As you recall, there are three areas--specific areas of concern: improper use of credit cards, potentially fraudulent use of purchase orders, and poor accountability of government property. But the specifics indicate, in our view, significant broad weaknesses in the management of business practices.

As soon as we learned of this last year, Secretary Abraham and I insisted that the University of California, which manages Los Alamos for the Department, take prompt corrective action. The University has replaced the laboratory director, his principal deputy and replaced or demoted 15 other individuals. The University has permanently subordinated the auditing function to the University to make sure the internal auditor is completely independent and has temporarily subordinated business services to the University. The University has also brought in outside firms to conduct detailed audits and has made a number of changes in the internal procedures in the laboratory. I am generally satisfied with the corrective action taken to date and with the actions of the interim lab director.

The Secretary has tasked the Deputy Secretary and me to conduct a review of the future relationship between the laboratory and the University, and we are to complete that by the end of April. In addition, we are compiling a series of ``lessons learned'' to make sure that other DOE facilities don't fall into the same trap.

On a more optimistic note, I think we are making good progress in meeting the intent of the Congress when the National Nuclear Security Administration was created. In December of last year, I implemented the revised management approach which we reported to Congress last year. It eliminates a layer of management, shifts the focus of Federal oversight to the site managers, and consolidates business and administrative support functions into a single service center; and, along with other management reforms, these changes, which we will have implemented by the end of fiscal year 2004, will result in a 20 percent reduction in areas excluding naval reactors, nonproliferation and emergency operations.

PRESIDENT'S MANAGEMENT AGENDA

We are particularly mindful, and Secretary Abraham I think stressed this when he was before you, of the importance of the President's Management Agenda; and we are fully committed to that. One area in which we have been implementing it is an emphasis on a new planning, programming, budgeting and evaluation process. What we are trying to do is work with the long view, budgeting with a firm 5-year resource envelope, managing program and budget direction with more discipline. This has been common for the Department of Defense; and we have modeled our efforts after them, although we have adapted them

to our needs. It has not been common outside the Department of Defense. Although it will take several budget cycles, I am pleased with our progress to date.

I am also pleased with the result of our participation in the Administration's Performance Assessment Rating Tool (PART). This year, the Office of Management and Budget evaluated four programs that encompass about 20 percent of our total funding. Two of them, the Advanced Strategic Computing Initiative and the International Nuclear Materials and Production, were rated in the top 5 percent of government programs throughout the government and were the highest two programs in the Department.

We will be incorporating the PART assessment approach into all of our programs as part of our internal evaluation cycle starting with our work to prepare the fiscal 2005 budget this summer.

In conclusion, Mr. Chairman, I am confident we are headed in the right direction. Our budget will support continuing our progress and protecting and certifying the nuclear deterrent, reducing global danger of proliferation and enhancing the capabilities of the U.S. Nuclear Navy. Our budget will enable to us continue to maintain safety and security of our people, information, materials and infrastructure; and, above all, it will help us meet the national security needs of the United States for the coming years.

This concludes my prepared statement, Mr. Chairman and my colleagues; and I would be pleased to answer your questions.

Mr. Hobson. Thank you, Mr. Ambassador.

[The information follows:]

GRAPHIC(S) NOT AVAILABLE IN TIFF FORMAT

Mr. Hobson. I am going to do something a little out of order. I am going to ask three areas of questioning because I may or may not have another closed hearing with another Committee I sit on going on.

But I want to send some messages--if the Committee would indulge me for a minute, I will go first. Usually, I like to let everybody else go first.

CONTRACT COMPETITION

But I want to talk about contract competition. Ambassador, can you explain why the Department has been able to complete the contracts for the Sandia lab, for all three nuclear weapons plants and for the Nevada test site but has not done so for the Los Alamos and Lawrence Livermore laboratory contracts. Are there some unique requirements at those two labs not present at the other facilities which precludes competition?

I have a series of other questions I will ask for the record later, but secondly on that, is there any reason that the Naval Reactor's approach to laboratory competition cannot be applied to the contracts for Los Alamos and the Lawrence Livermore labs?

Ambassador Brooks. The traditional answer--I want to make sure that--the Secretary has directed me to make recommendations in this area mindful, among other things, of your views and the views of others on the importance of

competition. The traditional answer for federally funded research and development facilities like the national labs has been that long-term stability is a benefit and that associated with----

Mr. Hobson. Sixty years?

Ambassador Brooks. The traditional approach has been that the benefits of the association over time for the science laboratories, the weapons physics laboratories, outweigh the benefits of competition. That is a judgment this Administration has not yet had the opportunity to make, because the contract was extended in the waning days of the last Administration. If the Secretary does not decide to do something earlier, we will be faced with that decision next year; and it will be the Secretary's decision. We understand the importance of the message you are sending.

Mr. Hobson. Let me talk specifics. I am going to run through three things real fast here.

PENSION PLAN

We understand that the NNSA recommended and the Secretary approved an increase in the pension benefits for Sandia workers to bring them into parity with the pension benefits offered by the University of California for its employees at the Los Alamos and Lawrence Livermore labs. This increase was claimed to be essential for recruitment and retention of employees at Sandia. If this reasoning was sound for Sandia, why aren't you seeking to increase the pension benefits for Kansas City and Pantex and Y-12 and for the Nevada Test Site? Have you considered that the University of California and Sandia pension plans are significantly more generous than those available to your Federal workers and won't this tend to encourage your talent of Federal employees to leave the government and go to work for DOE contractors? And can you afford to lose that talent?

Lastly, you know I am not sure that the facts follows out and I don't know why this was done, but you have two laboratories under Naval Reactors, Knolls atomic power lab and the Bettis atomic power lab. I assume that the pension plan for your civilian contract workforce at these labs is not as generous as those offered by the University of California. Are you experiencing any recruitment or retention problems because of your current pension benefits and do you feel the need to increase those pension benefits so that your contract employees are on a par with Los Alamos? It looks to me like you guys have built a real problem.

Ambassador Brooks. We made the decision on the Sandia pension plan because we see the three weapons laboratories as comparable and competing for the same, extremely rare pool of scientific talent. We don't see that the rest of the nuclear weapons complex is competing for that same talent; and, therefore, we don't see that it is automatically the case that we need to offer it. Remember, pension plans are obviously a subject of negotiation between the people who run the sites.

Mr. Hobson. Let me tell you the problem. I don't think most of the universities in this country--States are having real trouble funding everything. It is going on at my State now. I

am sure Tennessee has problems. I am sure Texas does. I am sure Illinois does. And these darn universities go around having these fat programs. I mean, we are supposed to have a big fat program as Congressmen, and I can tell you these programs are-- I will use a better word--a heck of a lot fatter than any we have. And I just lost 30 pounds, so I can speak with a somewhat of authority on that.

It is very discouraging to all of us and it is discouraging to other employees to see these universities continue down these roads when we are all facing problems. I have never seen a university that is run by the numbers anywhere, and I have been on the board of about four of them. I got off because I read their financial statements, and there is no attempt to control costs. It is just pass it on and raise the tuition, go to the State and ask for more money and continue on with the same problems down the road.

I have a lot of problems because these things--you are talking about an acorn scenario with somebody. These grow really fast into big oak trees that you can never touch. If these were really in a competitive situation in the world, this wouldn't happen. But, anyway, I am really upset about this.

I want to talk to you about something else, and then I will stop and let other people question.

SUPER COMPUTING

The Director of DOE's Office of Science and a number of other experts are very concerned about recent Japanese advances in supercomputing and are recommending that we rethink our approach to developing advanced supercomputers in the U.S. Can you explain why the computer experts at NNSA seems so much less concerned and why the fiscal year 2004 budget request does not acknowledge that the world of supercomputing has changed around us?

I understand that one of the key advances of the Japanese Earth Simulator is its increased efficiency, allowing it to reach sustained operating speeds that are 50 percent of the peak computing speed. The ASCI program is acquiring a 30 teraflops machine at Los Alamos this fiscal year, the Red Storm machine at Sandia operating at 40 teraflops peak speed, and the Lawrence Livermore. What will be the estimated sustained operating pace of these three ASCI operating machines?

They tell me we missed the boat. We spent all this money using this system, the basic business system that IBM has; and we bypassed or allowed this to go away. Now we have to go over, if we want to do some of this stuff, let the Japanese see everything we are doing, and we don't have this capability. Now if they are wrong, you guys need to tell us. Then you got to fight between you guys here.

AMB. Brooks. I think they are wrong for us. Because our program is designed for unique needs.

We are not just depending on IBM, obviously.

We will substantially outpace the Japanese earth simulator both in performance and particularly in cost.

How you choose to evaluate cost effectiveness of computers I think is different. People will do it differently. But if you look at the cost of that machine as a function of its operating

capacity and you look at the cost of the machines being produced under ASCI, I think that there is no comparison and no comparison in a favorable way.

I will be happy to provide a more detailed technical answer for the record, if that is acceptable, unless Dr. Beckner would like to add something.

Dr. Beckner. I think this is a very complex answer, if we aren't careful here, because the machine in Japan really is designed to work on a rather specific kind of problem. The machines that we have to have are designed and built to operate on a much broader range of problems. So the architecture that you use in the two cases is really quite different.

We have looked very carefully at the architecture that is in the Japanese machine. In fact, it was the architecture we used prior to about 10 years ago. We went away from that because it was not broad enough in its application. We continue to look at it. It is not as if we are rejecting it.

I think we need to give you a more detailed answer, because, otherwise, we say we are better and they say they are better.

Mr. Hobson. I am not talking about the Japanese now that say they are better, I am talking about some of our people who say that they are certain capabilities that we can't do as efficiently. For example, our machines are about 5 percent efficient. Their machine, when they turned it on, was 50 percent efficient at doing certain types of calculations and advanced calculations. And our people frankly want to leapfrog the Japanese machine.

Now, admittedly you don't build 25 of these, hopefully. But you do--if you are going to keep the preeminence of the computer capability for the scientific world as well as your world, which is scientific also, I need to know, there seems to be a division of thinking here. Before we spend additional money and before you spend additional money, they spend additional money, I think we have to have some understanding or at least I would like a better understanding and I think the committee members deserve to know what we are doing here.

Ambassador Brooks. Yes, sir, Mr. Chairman. We will get you that.

Mr. Hobson. Because there is a big difference from what the guy told me from the scientific community, who is the guy who was the head of the---

Ambassador Brooks. Dr. Ray Orbach.

Mr. Hobson. Right. There is a big disconnect.

Ambassador Brooks. Let me make one point. Dr. Orbach's responsibility is to advance the state of computing. Our responsibility is to devise specific tools that will let us solve specific stockpile stewardship problems. In doing that, we do advance the state of computing, obviously, but we are focused on being able to solve a particular class of problems. So this is not--at this stage of computing, this is not the all-purpose machine that will do everything. So it may be entirely possible for us both to be right because we are trying to solve different problems.

Let me get you a more complete technical answer for the record, if I may.

Mr. Hobson. Thank you very much.

[The information follows:]

GRAPHIC(S) NOT AVAILABLE IN TIFF FORMAT

Mr. Hobson. Mr. Visclosky.

Mr. Visclosky. Thank you, Mr. Chairman; and, gentlemen, thank you very much for being here today.

Ambassador Brooks, before I start, I want to thank you very much for your efforts during this past year. The Subcommittee expressed a lot of concerns about budgeting for weapons systems and also a great deal of concern over the last couple of years about lab-directed research. I do think that you acted with good intentions and effectiveness in taking great strides last year, and I want you to know I appreciate that very much.

Ambassador Brooks. Thank you, sir.

WARHEAD INVENTORIES

Mr. Visclosky. What I would like to do is ask about the nuclear weapon inventory and also talk about the W80 warheads if I could. The long and the short I guess of the question is that the President and the Russians have an agreement to reduce deployed warheads from about 6,000 today to about 2,000 in 2012.

I recognize that I am asking you to project out quite a ways, and to be honest with you I don't have much faith in budget projections past about 12 months, but here we are talking about something different than that, but we are talking about a lot of money. I guess the question I have is, is there an estimate as to how many weapons are going to be in the inventory by 2012 if we are going to have about 2,000 warheads deployed relative to the 6,000 in the field today?

Ambassador Brooks. The short answer is no.

Let me give you a slightly more nuanced answer. Almost certainly some number of the existing weapons are going to be identified by the Department of Defense for retirement. That is part of the Department of Defense's plans for implementing the results of the Nuclear Posture Review. With the exception of the W62 warheads, however, we have not yet--the Department of Defense has not yet identified which of those weapons will be retired.

It won't be all of them, because the concept underlying the Nuclear Posture Review is that you can go to these really, by historical terms, quite low levels now but that you need to have what is called a responsive capability. We haven't quantified that. So there will be the operationally deployed weapons, there will be some weapons that are deliberately maintained as responsive weapons, and some of the remaining weapons will almost--a fairly large number will almost certainly be retired.

But that is not our decision to make. It is the Department of Defense's decision; and the Department of Defense hasn't made it yet, although there is a large-scale implementation effort for the Nuclear Posture Review going on which I would expect will start making those decisions soon. But I don't want to speak for another Department, sir.

Mr. Visclosky. I wouldn't hold you to it, but do you have

any estimate when ``soon'' occurs?

Ambassador Brooks. No, sir. Without meaning to sound flip, the policy folks in the Department of Defense have been consumed, I think with other situations; and so I am not sure that this has been the highest thing on their plate. I just don't know. So I can find out and get you an answer for the record, sir.

W80 LIFE EXTENSIONS

Mr. .Visclosky. I think you understand where I am going with this is the cost to DOE as far as the modernization program. I want to talk about the W80s in a second. But my concern here is, looking out at least five years, is again there is almost no perceptible change either on the active or inactive list; and the costs keep escalating. You have an 11 percent increase in the budget in this account this year.

Ambassador Brooks. That is overall. The bulk of that is dominated by the increase in nonproliferation money.

Mr. Visclosky. I guess the question is, what is the theory as far as how far modernization goes and for which warheads?

Ambassador Brooks. Well, we have plans for service life extension for the W87, the W76, the W80 and the B61. I think that you have to step back and say, where are we going in the long term? Our planning must, of course, be driven by the Nuclear Posture Review and the requirements of the Department of Defense. But I see absolutely nothing that makes it likely that we are going to go fundamentally below the level of the Treaty of Moscow soon.

We have always taken the view that it is best to have multiple capabilities. So we have both the W78 and the W87 ICBM warheads. We have both the W76 and the W88 SLBM warheads. We have both the B61 and the B83 gravity bombs. We have the W80 cruise missile warheads, and we are retaining the W84 warheads in an inactive mode as a long-term hedge against needing a new cruise missile warhead. So I think you are going to see the same numbers of types of warheads, and that is a decision that has historically been influenced by the desire not to have all your eggs in one basket. I think you are going to see a reduction in the deployed weapons.

However, I don't want to mislead. If tomorrow the Department of Defense said we should cut the number of weapons from 10,000 to 5,000, I would not be up here asking for half as much money. A lot of these capabilities are based on the number of designs you have, not the number of specific warheads. Some are. The tritium, for example, we will spend less money--I predict, on tritium over the next 10 years than the current projections suggest because we will reduce some of these warheads.

Mr. Visclosky. If I could, one more question along the same line. In talking about the W80 and talking about money, the W80 Selected Acquisition Report to Congress shows that DOE plans to spend about * * * W80 warheads.

Looking ahead to any potential reduction, if you looked at some of the systems, whether it be the Trident Minuteman cruiser, if you did a proportionality reduction, which I assume will not happen, at best you are talking a lot fewer cruisers.

In the budget 2 years ago, NNSA testified that the first block of W80 refurbishments would be at a cost of \$771 million. Last year, it was \$981 million; and this year it is \$1.4 billion. Then in March of this year, an IG report from the Department of Energy on the W80 Life Extension Program states that our audit discloses that it is unlikely that NNSA's--we will have to come up with another acronym--W80 refurbishment project will meet scope, schedule and cost milestones. DOE labs canceled and delayed testing weapon completion and support facility renovation activities without notifying NNSA.

Mr. Visclosky. I am very worried about the budget implications, particularly on a warhead, if you look at the system it is on and the delivery mechanisms and the ages and the theory that there is going to be a reduction, that we are going to be spending a lot of money.

Ambassador Brooks. There are several reasons for the situation you have described. Some of them shouldn't worry you. I mean, they are based on policy judgments you may disagree with, but we understand them. Some of them perhaps should. Let me try and walk through it.

Let's talk about the cost first. Part of cost growth is real, part of it is bookkeeping. The first two numbers \$771 million and \$981 million, that is real additional money. And that is because of a rebaselining associated with shifting the W-80 responsibility from Los Alamos to Livermore.

And in transferring that technology and that knowledge and that responsibility we made the decision; and the decision was we wanted two weapons design labs to remain in business over the long term, and that by happenstance, a disproportionate number of the designs that we were retaining were Los Alamos designs.

So we consciously made the decision to pay the additional cost, rebaselining the program at Livermore, because the way you keep weapons design capability is to work on real weapons. so that is a real increase made for a policy reason.

The apparent increase between \$981 million and \$1.4 billion whatever is a bookkeeping increase, because it is the difference between direct and indirect costs, direct and--the direct costs are the \$981 million. The others are the more accurate, full-cost accounting that this Committee has urged up to adopt. So that is----

Mr. Visclosky. That is because you are accounting by weapons system now, so we have a more accurate reflection.

Ambassador Brooks. That is right. So it doesn't mean the taxpayer is going to spend any more money, it means that we are making it more visible. Then your second question of your concern is this IG report that has just been issued.

Generally, we agree with the IG's conclusions, that there are some risks to the schedule. I don't think the kind of very large numbers we are talking about is the magnitude of the risk.

Third, the question is, is any of this worthwhile? Are cruise missiles going to go away? I am constrained by the plans of the Department of Defense, and nothing that I have seen from the Department of Defense suggests to me that we are going to get out of the nuclear armed cruise missile business. That is why we have a W-80 life extension program.

So, I--yes, those are my three answers to the situation that you described, sir.

Mr. Visclosky. Which again points out the problem as far as DOD's policy driving a lot of your costs, because even if they don't get out of the business, the question is, numerically, how much do they stay in business?

But the Chairman has been very generous with his time. We have got a lot of Members.

Mr. Wamp [presiding]. Mr. Simpson, you are next. However, Mr. Frelinghuysen does have a very important hearing. In case you have any requests of the D.C. appropriations bill, you might consider yielding to him.

Mr. Frelinghuysen. Thank you, Mr. Chairman. Thank you, Mr. Simpson. I just want to talk for a few minutes about the real potential that we can have more potential members of a nuclear blackmail club.

NUCLEAR PROLIFERATION

We are focusing on North Korea, and it still is a mystery to me, having served on this Committee, and we worked in support of the last Administration on the deal with North Korea that we could have signed that agreement and been totally blind-sided.

I have never read a satisfactory explanation. I am not sure you are here to give one. But we have, obviously, the Indians and Pakistanis that have a nuclear potential. We have cemented relations with the Russians in terms of taking a look at their curtailing and controlling their nuclear materials.

What is happening relative to the Peoples Republic of China--and will you make some comments on the North Korea situation? And, for that matter, the other country that has sort of fallen off the radar screen, but surely not off yours, Iran. Peoples Republic of China, North Korea and Iran.

Ambassador Brooks. Let me take them in reverse order and start with Iran, because Secretary Abraham has been particularly active there. There is, I believe, no question that the Iranians are seeking to ultimately have at least the option to develop nuclear weapons. The scale of the nuclear program that they have undertaken makes no sense in a country that is sitting on as much oil as they are and has as many other economic needs. So we believe that, at a minimum, they are seeking to have a future capability.

What are we doing about it? The most near-term issue has been the reactor at Bushehr. Bushehr is a power-generating reactor being built with Russian assistance under an agreement from the Russians that they would provide the fuel and that the fuel would be taken back.

If that agreement were to come to pass, I am absolutely convinced that the Russians are serious on it, the proliferation consequences would be lessened, because the reason you worry about commercial reactors is that the spent fuel can be reprocessed to provide plutonium for weapons. So the spent fuel goes back to Russia.

The Secretary has received personal assurances from the Minister of Atomic Energy in Russia that, in fact, that will happen. It has recently--it hasn't been revealed to us, but it

has recently been revealed publicly that the Iranians are also involved in a very large-scale uranium enrichment process that is farther along than many people expected.

The risk there is that once Bushehr is in operation, you no longer have to have Russian fuel, and therefore you no longer have the right for the Russians to take it back. We have pointed this out to the Russians as recently as last week in a meeting that Secretary Abraham had with his counterpart, and urged the Russian Government to reconsider their support for Bushehr.

We also have been working with the International Atomic Energy Agency (IAEA). We expect that the Iranians who are not, in my view--in my view, not the view of the U.S. Government or International Atomic Energy Agency; I don't think the government has formed a view--they are not in compliance with their existing safeguards agreement. They should have declared that facility earlier.

But the IAEA is working, trying to enhance safeguards. I think that the Iranian program is not a near-term problem.

Mr. Wamp. Dr. Simpson.

Mr. Simpson. Thank you, Ambassador. And, Admiral, it is good to see you again.

Let me talk, if I can, and ask a few questions about the Naval Reactors Program in Idaho. It has been a great program in Idaho, and you have great men and women working out there; ever since Admiral Rickover discovered the Idaho desert, it has been an important part of our state.

When I was growing up, very young in Idaho, I used to wonder why all of these people were working around with Navy uniforms on. I knew that there wasn't a large body of water around in that desert, but I found out later on.

Does the DOE budget request contain sufficient funds to stay on track to meet all of the milestones affecting the Naval Reactors under the Idaho settlement agreement?

Admiral Bowman. Congressman Simpson, it does. We have been fairly meticulous over the years in asking for exactly what we need and not a penny more, but not a penny less. And we feel that without question, to meet the Idaho agreement, the budget is appropriate.

Mr. Simpson. When is all of the spent Navy reactor fuel at Idaho to be moved to dry storage? Do you know the date?

Admiral Bowman. We have begun that process, and have, in fact, proven the concept that will be used in a production line. Just in this last month we moved the first set of fuel from wet storage to dry storage. The final and date is not yet specified.

Of course, in the agreement, we have agreed by 2035 to be completely out of Idaho and to be among the first of the shipments to leave Idaho. When the last morsel of fuel will be dry-stored is not yet determined.

Mr. Simpson. Okay. Are you--do you have any concern about the transfer of landlord responsibilities from EM in the Department of Energy to NE at the site?

Admiral Bowman. I have a minor concern about the transfer of that responsibility. I believe that from an administrative point of view, it will be transparent to me. But, currently, EM actually owns it now and operates that site.

The radioactive material waste complex is what I am referring to. And they are allowed to plan and budget for the operation of that facility. If, in the transfer, the cost shifts to the customer, and I am one of the customers, then I will have to add that additional funding to my request, and I think that is the only concern that I have in the potential transfer.

Mr. Simpson. Okay. We will keep an eye on that as that occurs.

As you know, the Naval Reactors program has been so successful because you have a very focused mission, and you concentrate on that focused mission very well. In fact, as I was reading your literature here, that is one of the things you emphasized, that it is a focused mission to provide militarily effective nuclear propulsion plants and ensure their safe, reliable and long-lived operation.

As you know, NASA is looking at a new project for nuclear-powered space craft, Project Prometheus, and they, as I understand it, may be asking for the expertise of the Naval Reactors program. Do you think that that will expand your function and maybe undercut your mission?

Admiral Bowman. Well, I won't let it undercut the primary mission of delivering safe, effective nuclear-powered warships to the Navy. You are right, though, that the NASA administrator and the NASA hierarchy, I believe, would like for Naval Reactors to assume the responsibility for developing this reactor for Prometheus, and for the subsequent missions. We are working that out even as we speak.

I would insist that we would continue to do business for the Navy exactly as we have. And, in fact, I believe that if we were to take on this added mission of the space exploration and the space reactor, that there would be spin-offs that would be very agreeable to the Navy's requirements and would be dual-use, available for us to spin into Navy situations.

Mr. Simpson Thank you, Admiral.

Ambassador, one other question I wanted to ask is in the budget request, you requested \$6 million for the nonproliferation oversight responsibilities, I guess it is, for the nuclear compliance verification. You have requested \$6 million.

Given the situation of the change that has occurred that we just talked about vis-a-vis Iran and, potentially, Iraq, North Korea, is \$6 million really enough?

Ambassador Brooks. Let me answer the question generally, because I am drawing a blank on the specific line item. And while I answer the question generally, I will let Mr. Baker think about the specific line item.

With regard to North Korea, in fact, what we were planning to do--first, we have been developing a so-called ``tool kit'' that would aid the International Atomic Energy Agency in the full and complete accounting of past plutonium production. The money in the budget was enough to do that. Whether or not that will ever come about depends on whether you believe we will get the IAEA back into North Korea.

Similarly, there was money in the budget, although it did not provide a direct line item, for us to maintain the safety of the fuel stored at Yongbyon, and whether that money will

actually be used for that purpose depends on whether or not we get our people back in there to maintain it, because they reversed the reprocessing decision.

So I think that the likelihood is the other way: It is not a question of do I need more, but because these are cooperative efforts that depend on the access of the host country, will I have the access to use what I have asked for? My view is that we should preserve that option, because it is our hope that we are going to resolve the situation diplomatically. I don't now see a need for an increase in that area.

Mr. Baker. The Ambassador is right. This tool kit was being built for North Korea so that we could find out how much plutonium they had produced. We thought, after the problem of North Korea, it is not just for North Korea; it is for anyone in noncompliance.

So the question came up, if we had a problem with North Korea, do we still need it? The answer is, yes, to see if other countries are in noncompliance. And the money, the \$6 million, is enough this year. The total cost would be something like \$24 million for this tool kit, overall.

The State Department still requested us to build this tool kit. So it is one that we can use throughout the world to find out whether countries are noncompliant with the NPT.

Ambassador Brooks. But we do need to stress, Congressman, that our efforts are primarily in support of cooperative monitoring.

Now, as a separate monitor within this budget, there is a little over \$200 million for research and development. And much of that is, in essence, for intelligence tools to help find out, without the cooperation of a country, whether or not they are in compliance. But the specific kinds of programs Mr. Baker was describing are for situations where the United States or the international organizations such as the IAEA has been given access.

Mr. Pastor. I probably should be at Homeland Security asking this question, but since I won't have an opportunity to do it there, I will do it here.

The probability of a dirty bomb in the United States, and then, second to that--well, along with that response, our security effectiveness, to be able to even detect one with high--is there a possibility?

Ambassador Brooks. I spent last week at a conference in Vienna on dirty bombs that was the result of an initiative of Secretary Abraham and 124 countries. And our message there was to try and strike a balance between prudence and overreaction, and try and focus on the relatively limited number of materials, such as Cesium 137, that actually would be quite suitable for such a weapon.

I think right now, that this is a risk, like many others, that needs to be paid attention to. I think it would be a mistake to panic. It remains almost certainly true that if a dirty bomb goes off anywhere in the United States, the people who are killed are going to be people killed by the explosion.

Some are using the term ``weapons of mass disruption'' for these things. What is going to be the economic impact is going to be, you know, large-scale contamination which, even if it isn't really life threatening, there is a public tendency not

to distinguish very much between small amounts of radiation and large amounts of radiation. That would be very disruptive, so I think that it is worth paying attention to.

What we are doing? First, we--the Department of Energy actually, not primarily my part, is working with the NRC on an orphan source program. What that means is, these radioactive sources that no longer have a use, to try and recover them and store them and ultimately find a path to dispose of them.

With regard to bringing in radioactive material from outside the country, we are supporting two efforts under the Department of Homeland Security. One is, we--under Mr. Baker's supervision, we have been supporting them in primarily the technical evaluation of deployment of portals to detect radioactive material coming into the United States through land crossings.

Secondly, because you tend in this country to want to have a lot of throughput at ports, we have been working with the Customs Service on a program we are calling Mega Ports; and that idea there is that we would deploy the ability at large--the large ports, ultimately, ideally at every port in the world, but start with the so-called Mega Ports, at classified level, only because of the sensitivity of the government involved.

So that is what we are doing.

I want to stress the detection of a material suitable for a dirty bomb is actually the easier part of the problem, because this stuff is highly radioactive. So you have some physical thing to detect. The much more difficult part of the problem is the detection of material for an actual nuclear device because the physical signature is less.

We are spending a good deal of time and money, and my understanding is, the new Department of Homeland Security has spent a good deal of time and money in trying to improve our ability to detect that material. But the laws of physics do not help us particularly in this area.

Mr. Pastor. Thank you very much.

Thank you, Mr. Chairman.

SITE SECURITY

Mr. Wamp. Thank you all for being here.

Mr. Ambassador, you said in your testimony that your 2004 budget request increases spending for security technology and reduces your dependence on guard force staffing.

Ambassador Brooks. ``Will ultimately reduce'' is what I meant to say.

Mr. Wamp. Well, the old guns, gates, and guards paradigm is expensive and is maybe not as efficient as it should be or can be in the era that we are in. What are you doing in the short term to try to transition into a more technology-oriented security capability as opposed to people?

Ambassador Brooks. I have to tell you, sir, that in the short term, we are trying to get a handle around it for the long term. I don't, at the moment, have any major initiatives that I expect are going to reduce the need for guard forces over the coming year. Indeed, we are working in the opposite direction.

We are trying to improve the efficiency of the process whereby we hire guards and improve the speed with which we go through the security clearance process, so that we can get a handle on what is, right now, a potentially serious problem with excessive overtime among guards. Guards like some overtime because it is a way that they make money, but we have got more than they like right now.

Dr. Beckner. If I could, I think we do have two examples where we are moving in that direction. The facility that is presently under design for Y-12, called the Highly-Enriched Uranium Materials Storage Facility, is being designed in such a way as to minimize the requirements for guards. Clearly, that will take a very large amount of the highly enriched uranium in storage at Y-12 into that one facility and has the potential then to release guards from other areas where they are presently having to protect material that is distributed more widely at that plant.

The second project at Los Alamos, we have the move of material from an area there called TA-18, where there is a large amount of material required in a criticality facility there, which we are in the process of planning to move to the Nevada Test Site--again, into an area out there called the Device Assembly Facility, which has never been fully utilized, but is set up for a rather efficient arrangement for guarding uranium.

Ambassador Brooks. Extremely efficient arrangement.

Dr. Beckner. So we are spending capital money on those two projects, well over \$100 million at Y-12. We will spend over \$100 million moving the material from Los Alamos, but in the end, it will reduce the guard force.

SMALL BUSINESS

Mr. Wamp. Without crossing over into micromanagement of NNSA, I would say there are military experts that have been in the private security industry in this country that could give you all really good advice on how to transition into a more technology-oriented security work force, as opposed to a reliance on the traditional systems.

Ambassador Brooks. You were actually kind enough to put me in touch with one of those, who has been meeting with my people. I appreciated it.

Mr. Wamp. Good. Thank you.

Also, at the risk of not micromanaging your agency, we have a large IT contract that is up for potential recompetition in Oak Ridge; and we understand and embrace the need to recompute contracts and even to look to smaller businesses to do these contracts. But the NNSA BWXT the IT contract may possibly go to a sole-source company that is here in the D.C. area, and I just would like to say, that would be a big blow to East Tennessee, where there is a tremendous corporate citizenship involved here. And I would just ask you to give every consideration to personally involving yourself in this, to make sure that there is fair consideration of the effects on the region, not just a national trend towards opening up these contracts.

Ambassador Brooks. Yes, sir.

Let me make three points. First, I will look into it

personally. Secondly, one of the things that we have always relished is this strong support we get from the East Tennessee region.

But as you heard the Chairman suggest, there is good deal of interest in making sure that we are using competition effectively, and the President is committed to trying to focus on small business, and so is the Department. So we may be subject to some competing pressures here.

Mr. Wamp. Yes, sir. You all actually, I think, across the board here at this panel, are doing a very good job. I have said before, and I will say again. I think, if NNSA would not have been established, that this particular mission of the Department of Energy might have been spun off to DOD or DHS post-September the 11th. But because we were going in the right direction, organized, and had a new emphasis in a planned way on security within the weapons complex, we were able to actually have the NNSA with the confidence of this committee and the country.

You talked about facilities and infrastructure, where obviously, in my part of the world, Y-12 and across the weapons complex, we are very interested in this aging infrastructure. You scanned it in your testimony. But what are you looking at as you build the investment from budget year to budget year on improving these facilities across the country? What is your long-term goal, briefly?

Ambassador Brooks. Sir, I would be happier to answer that one for the record, if I can.

I can give you a very general answer, but it deserves a more specific answer. We hope by later in this decade to stabilize the backlog of deferred maintenance through the facilities and infrastructure recapitalization program.

We hope to work off that backlog to where, around 2013, this program can cease, because it is intended to be a short-term get-well program, and then to maintain the infrastructure through the Readiness in Technical Base and Facilities program that we always have.

The problem we have, as you well know, is that it takes a very long time to turn over infrastructure. We are trying to now focus on both critical needs, stabilizing the backlog and then beginning the process of demolishing the relatively large number of unneeded facilities we have. But associating that with specific dollars, I would actually be more comfortable in----

[The information follows:]

GRAPHIC(S) NOT AVAILABLE IN TIFF FORMAT

Mr. Wamp. In General, it appears that the EM portion of the Department of Energy has convinced OMB that they should be a high priority on accelerated cleanup.

My question is, has NNSA convinced OMB to move the weapons activities related to upgrading our infrastructure and preparing ourselves for future threats and futures needs missions, is it back on the front burner again, in general?

Ambassador Brooks. I think it is back on the front burner. I don't want to hide behind OMB, though, because these are largely decisions that we get to make.

In the Nuclear Posture Review, the President approved

something that is unique, at least in my experience. He, in signing onto the so-called New Triad, he put infrastructure in parallel importance with offensive weapons and defensive weapons.

If you are in the business, that has sort of always been true, but to have that level of recognition is hugely important. OMB, in recognition of that, has been very supportive of our efforts. My predecessor and Dr. Beckner and I have all tried to make sure that we are striking the right balance to give this priority. We are all sensitive to the problems that we were in a few years ago, and we are all excited, digging out of them.

So I think one can argue about particular decisions in any budget. But in broad terms I am completely convinced that we understand the importance of getting well on infrastructure. I don't see any falling away from that.

Mr. Wamp. This is an aside, but I was very interested in hearing you talk about Vienna last week. I am on the Homeland Security Subcommittee of Appropriations, as well.

In Vienna, was there any discussion around the events of a dirty bomb release, vaccinations around a dirty bomb release?

Ambassador Brooks. We are focusing, because of the venue, entirely on radiological-type dirty bombs. For that, it is not clear to me that vaccination is really appropriate.

There was a good deal of discussion about cleanup, about the importance of quickly mobilizing resources, about monitoring. There was some discussion about the medical consequences for individuals. That is largely understood; the problem there is scale. I mean, if you have--if you have one contaminated individual, we know how to take care of it. If you have 10,000 significantly contaminated individuals, that will overwhelm most medical treatment areas in most parts of the world. So there was a discussion of that.

I would say the bulk of the discussion was much more on prevention and detection and organization rather than on consequence management.

Mr. Wamp. Without chasing rabbits here, is there a continuing discussion among all of the respected nuclear agencies, NRC and others, about a standard as to what an acceptable level of radiation is in this country?

I have been hammering this for 8 years. We still don't have it. We have been waiting. There is none, so as a result, we are spending a lot of money on nonsense, because we don't have a scientific factor of what is an acceptable amount. If we had a release, that would be a real problem, not determining what is clean.

When can we go back to the way it was, in an area that happens to be, quote, ``contaminated''? Because we all have radiation; if we fly a lot, we have a lot of radiation. I know I accept that in my life. I have got a lot of radiation in my body. But by some standards, zero is the only acceptable measurement. That is crazy.

So when are we going to do that? If we can't do it in an emergency like this, will it ever get done?

Ambassador Brooks. I don't have a good answer for you.

Mr. Wamp. It is a big problem, isn't it?

Ambassador Brooks. Yes, sir. The occupational standards are

fairly clear. I mean, the traditional standard is as low as reasonably attainable. And we understand the occupational issues. Naval Reactors has led the way in that area forever.

The question of what you do after a radiological emergency, and when you declare victory, I think; there are neither national or international standards. There was some discussion in Vienna of the need for those. There was some discussion in Vienna of the need for those. There was some discussion in Vienna of the importance of categorization, that is, you can't--you don't want to run around and start putting guards around everybody's smoke detector.

What is it that you are really worried about in radiological things? There are a number of schemes. They are all sensible. They aren't all exactly consistent. And one of the efforts to come out of Vienna was trying to deal with that end which--once again, I think we focused much more on the other things.

Mr. Baker. Mr. Chairman, if you would like, there is an official report on the findings of this conference last week that we can send this committee.

[The information follows:]

GRAPHIC(S) NOT AVAILABLE IN TIFF FORMAT

Mr. Wamp. Is there an executive summary?

Mr. Baker. Yes. It takes 5 minutes to read it.

Mr. Wamp. Admiral Bowman, you are still the pride of Chattanooga, Tennessee, even though I didn't hear your voice today. We both are from the same place in the world.

Mr. Visclosky, do you have a follow-up?

Mr. Visclosky. Well, with Admiral Bowman being from Tennessee, I have some questions for him.

On the new core, Admiral, would that in any way necessitate a reconfiguration or redesign of the Virginia class itself?

Admiral Bowman. Absolutely not.

Mr. Visclosky. And what is the primary motivation? Is it performance or is it cost, or things of--a combination of many of those?

Admiral Bowman. It is a combination of several things. It is an interesting story. We were--we knew all along that we were going to have to redesign the Virginia core when we shifted from our traditional fuel source of 97 percent enriched uranium 235 over to the decommissioned bomb material, or weapons material, at 93 percent. So we knew we had a redesign in the offing.

Along came 9/11. The demand signal from the combatant commanders, those officers that we used to call commanders in chief of the regional territories around the world--CENTCOM and the European Command and the Pacific Command. The demand signal for these nuclear powered vessels went up by 30 percent on 9/12/2001.

We didn't go up by 30 percent in our inventory of these ships, obviously. So, to make ends meet, what we have been having to do for the last year and a half is operate these ships much harder than we had planned originally. First, where we had originally planned to achieve a 33-year lifetime of the reactor cores of Virginia and the last half of the Los Angeles

class, we had based that assumption on moving from point A to point B at 16 knots.

Today, in order to try to close this gap between what is required and what is available, we are now moving at 20 knots. That takes energy out of the core.

Likewise, when the ships are deployed----

Mr. Visclosky. Is that classified?

Admiral Bowman. Those numbers are not classified, no, sir.

Second, while on deployment, the baseline to achieve 33 years of core life, assumed that our submarines would be in port about 35 percent of the time while they were deployed. That is a 65 percent, put the other way, operating tempo.

Again, today, to make ends meet, these submarines are at sea virtually the entire time that they are out there; 80 percent is about the average operational tempo that we are seeing, instead of the 65 percent.

Mr. Visclosky. Eighty percent?

Admiral Bowman. Yes, sir, when they are deployed. The third factor that goes into the same pot I am describing--using the reactor cores at a much higher rate than we had planned for, the third thing that goes into that is that the submarines were originally assumed to be in port for about three times the length of time that they were deployed, called a 3.0 turnaround ratio with about 50 percent of the total time being * * *. So a particular submarine deployment, SSN deployment of 6 months, we planned on having that ship back in port doing maintenance and training for 18 months before it deployed again. Today, that number is down and for some ships has approached a 2.0 turnaround ratio and some ships are operating at higher than 50 percent at-sea times in the aggregate.

Those three factors mean that if we were to continue at that pace with a brand-new Virginia class--as you know, not even in the water yet--but the very first of the Virginia class, the USS Virginia, would last much less, maybe 29 years or so, at that rate of expenditure of the reactor core.

We therefore needed to do something to compensate, and that something is to add back into the core about 30 percent more energy. Through special investigations that we have done, and now I am getting into some classified material again----

Mr. Visclosky. But primarily, then, it would not be cost driven; it would increase your ability to operate at a lower cost, it is performance driven and demand driven?

Admiral Bowman. Performance and demand driven, I would start with because it would maintain the plan that we had in effect to allow these ships to last the 33 years that we had planned for. However, in the longer run the high energy core will preclude costly refuelings or very costly additional submarine acquisitions. So there definitely is a cost avoidance

Mr. Visclosky. How many Virginias will be put in the water before you are able to put the new cores in the subsequent ones?

Admiral Bowman. Well, similar to what we saw with the Los Angeles class, almost half of the Virginias will either be in the water or at least be in the construction process. Specifically, six will be in the water.

We are thinking we can put this core in a submarine around 2010, and by 2010, we will have launched and be operating six

of these Virginia class and be in the process of building eight others. So a total of 14 of the class of 30 of the class would have the first design core.

Now, if we back off this rate, this operating tempo that I am talking about, this accelerated tempo post-9/11, going after al-Qaeda, going after whoever else might be around the corner, if we back off and go back to where we were before, then good for that, too, because these--the second half of the Virginia class then would have about a 5-year additional lifetime that we could draw on, or we could operate those ships at a higher power level for the same lifetime.

Mr. Visclosky. Any particular problem because you have a mixed fleet, because of the core difference?

Admiral Bowman. No, sir. In fact, the protection systems and the safety systems will not be affected at all by this.

Mr. Visclosky. Okay.

Admiral Bowman. This really has to do with the--with the structure of the fuel material and the cladding material that allows us to achieve a much higher energy density in the reactor core than we have today. And as I said, the new design coincides with the new design requirement to incorporate uranium from * * *.

It is very similar, sir, to what--the success that we had in going from the--remember when we launched Nautilus way back when, the first nuclear submarine?

Mr. Visclosky. Vaguely. (Laughter.)

Admiral Bowman. That core was good for 2 years. So it has been a long-time goal of this program to increase the energy density of those cores so that we don't have to replace them frequently, because it is very, very costly to do that.

Mr. Visclosky. Thank you very much.

It is another subject and another hearing, but I wish our rate was higher, building those submarines. But I will leave it at that.

Admiral Bowman. I am with you.

Mr. Visclosky. Ambassador and Dr. Beckner, in another answer, I think to the Chairman, you alluded to the movement of materials from Area 18, and \$100 million. My understanding is, on October 30th, the annual report was submitted on the status of nuclear weapons safeguards and security.

And you had mentioned the figure of \$100 million. If I am correct, that same report also said that for that specific program, associated funding is being identified. Am I correct on that?

Let me just--just from that report, relative to Sandia, and I will just give you a few more of these: The quote here is, ``There is a program on the neutron generator recovery capability,' ' you know, it is being identified as far as capability.

I have another one, ``requires additional funding. We have another one at Y-12, pending additional funding, Savannah River; construction of new underground storage is awaiting funding.' '

And I guess my question, probably more so to the ambassador but also to Dr. Beckner. As far as the 2004 budget, are some of these requirements in areas where funding was being looked for in that October report? Have they been found?

Ambassador Brooks. Many of those, and I would like to provide you a more complete item-by-item account for the record. But virtually all of the things in that report are looking for funding in the sense of, it is a multiyear program, and so I cannot say, I have all of the funding; or looking for funding in the sense of, it might be slightly more efficient to start it this year, but I have chosen to start it next year.

The report to which you refer allows an unintended impression that there are near-term security problems that are being held up because of funding, and that is not correct. And I believe that the 2004 budget is probably--and let me explain why I say ``probably''--fully adequate in this regard.

The wild card is--and it is also true with 2003, and we are, in fact, looking a little bit at some security issues within 2003; I don't know how long I am going to be in the accelerated security condition that was imposed on Monday--that costs me more money.

I don't know whether we are going to see additional threats developed within the United States that will require us to go to even higher levels of security. And if, in fact, that does come about, then there could be problems.

But in terms of the specific improvements in security that are mentioned in the report to which you refer, I have looked into them, I have gone through each of them, and I do not believe that there are any that should cause concern.

I would like, however, to give you a more detailed summary of those.

Mr. Visclosky. If you could that would be fine.

I didn't mean to cut you off, Doctor.

Dr. Beckner. No. I think that is probably what you need at this point.

I would just add that, in the case of TA-18, we are still in the design phase of that facility. So we really are in the process of deciding what the features will be and what it will cost in the end. So we have an estimate for now which we have in the budget with no difficulty.

Dr. Beckner. If it turns out that we are going to have to spend a good deal more than we presently estimate, then we will have to figure out how we are going to get that in the budget, too. But for now we have got it in there, and we will see what the design turns out to be.

Mr. Visclosky. So the \$100 million would be a projected----

Dr. Beckner. It is actually a bit more than 100 already.

Mr. Wamp. Thank you.

Mr. Simpson.

Mr. Simpson. Thank you, Mr. Chairman.

Ambassador, there are several new nonproliferation initiatives, and they all sound good in principle, but we seem to lack any benchmarks to help us know where to get the most bang for the buck. How does the Department determine whether additional funds in the 2004 are best spent on securing more weapons grade materials at Russian military sites, taking their plutonium production reactors off line, securing material that might be used in the radiation dispersal device, buying additional highly enriched uranium, et cetera, et cetera, et cetera? How do you evaluate the relative risks there so that we can get our most bang for our buck when we are appropriating

money for this?

Ambassador Brooks. Well, first, obviously, because of the importance of the problem, we want to do this in the most effective way. It would be nice if I could tell you that there was a reproducible, quantitative approach that would let all of us look at the same set of figures and come to the same conclusion about where the last dollar ought to be spent. There isn't.

When we were talking about radiological dispersal devices in the Vienna conference a moment ago, I pointed out that one of the major needs that came out of that conference was to find some agreed way to decide, even within that narrow subset of the problem, what is the most important. Is it the thing that is the most radioactive or the thing that is the most portable or the thing that is part of the least difficult to dismantle or the thing that is in the inherently more guarded facility? We have a methodology that we use in that area, so does everybody else, but none of them, even in that narrow area, are purely quantitative.

What we have done is we have used what you might call qualitative risk analysis, and we have tried to focus our efforts and then validate them by looking at the recommendations of outside bodies in places where we think we can do the most good.

As you get into the program, for example, for securing materials, there is a pretty methodology for trying to pick which sites to go to first. It is set forth in the material protection control and accounting strategic plan. There is not a good methodology for deciding whether a dollar is better spent there or better spent on plutonium production reactor shutdown.

Mr. Simpson. Would you be willing to look at some of the outside research facilities or firms or think tanks to contract, develop that methodology?

Ambassador Brooks. We have looked at a lot of them. We have looked at the 1995 National Academy of Science report. We have looked at the Secretary of Energy's reports, Baker Cutler report. We, of course, did participate in an administration review fairly massively in the first year of this administration of all nonproliferation programs. We are now reviewing the most recent report commissioned by the Nuclear Threat Initiative.

The one thing that is common to all of these reports is that none of them have come up with a quantitative approach. What they come up with is the need to attack on a broad area, and I agree with the general feeling that the problem is large and so doing almost anything is a good thing.

Our approach is a fairly straightforward approach to follow: Stop making the stuff, consolidate it where it exists, guard it once it is consolidated and eliminate it where you can. Of those guarding it is where we have tended to put our priority, because that is the most immediate problem. But---

And then I am comfortable with at that level of detail that we have a strategic view. But something that would rise to the level of budget justification, of saying this program is \$14 million and this other program is \$8 million and here is the quantitative reason, why that is the right answer--I would

welcome looking at any outside groups, but I have personally looked at the reports I have just mentioned, and they don't get me there.

Mr. Simpson. But there are outside research firms and so forth that develop methodology for those types of things.

Mr. Baker. I think we checked with probably the United States' best on something like this. Gave him the problem. He says, you can't solve it; you are solving it the best way. One way you could do a little bit is a Delphi analysis, using the Delphi method and getting some experts in.

Ambassador Brooks. That is just more experts.

Mr. Baker. That is more experts.

Ambassador Brooks. Maybe better.

Mr. Baker. I don't think there is anyone better. We would be more than happy to check with this person we checked with. He says the way you are doing it is the best way from a risk-analysis bit. But we will be more than happy to check.

Mr. Simpson. If you could check on that and get back with us within the next few weeks.

Ambassador Brooks. I would be happy to, sir.

I don't mean to sound like I am--I am spending an enormous amount of the taxpayers money on a hugely important problem, and there is nobody in this room more anxious than me to make sure I am spending it most effectively. Every day I wake up to another report by somebody who doesn't have to do it themselves about how we should be doing it faster. So I want to spend this in the most effective way. I just--right now, expert judgment appears to me to be better than the kind of quantitative methodology that some have advocated. But if I can find a quantitative methodology that works, I would love it. We will look.

[The information follows:]

Risk Analysis of NNSA's Defense Nuclear Nonproliferation Programs

The application of a quantitative risk analysis discipline to the allocation of funding for the various programs within Defense Nuclear Nonproliferation is very difficult and complicated. In order to apply risk analysis to budget allocations in this area, we would have to quantify each threat, its likelihood of occurrence, and in addition provide mathematical estimates of the effectiveness of each of the mitigation means at our disposal. This sort of complete quantification is elusive. We have discussed this topic with Dr. Bernard R. Siskin, a nationally recognized expert on statistical analysis at the Center for Forensic Economic Studies. He indicates that we have no realistic means of quantifying the risks from terrorists or rogue nations obtaining weapons of mass destruction for an analytical method, given that the weighting of the adverse impacts is intangible and subjective.

There are also practical considerations associated with the limits to international cooperation that effect any complete calculation, and the constraints imposed by both domestic and international agreements further complicate any strictly analytical treatment. NNSA has a clear qualitative understanding of the need to assure as rapid progress as is possible in the short term; effective risk reduction efforts associated with the protection and control of nuclear materials and weapons is a top priority. At that same time, it is difficult to overestimate the value of the long-term disposition programs that engender continued

international cooperation and fulfill national commitments in counter-proliferation efforts. What is clear is that the risks associated with the threats addressed by this program are very high, and our qualitative judgments, reassessed through years of in-country experience, have thus far served us well.

Mr. Simpson. I appreciate it, sir. It is one of the things we have to look at, also, how are we spending the taxpayers' dollars and is there a better way to spend it. I appreciate working on it with you.

Mr. Wamp. We are just a few minutes away from a vote on the House floor. Mr. Visclosky.

Mr. Visclosky. I would associate myself with some of the questions by Chairman Hobson on the competition and also would associate myself with the observations on infrastructure investment of Mr. Wamp.

Mr. Simpson. Wouldn't you like to associate yourself with my remarks?

Mr. Wamp. We thank you very much for the time of each you and all of your professional staff that is with you today. Thank you very much.

We will adjourn this hearing.

[The questions and answers prepared for the record follow:]

GRAPHIC(S) NOT AVAILABLE IN TIFF FORMAT

W I T N E S S E S

	Page
Brooks, L. F.....	127
Chu, Dr. Margaret.....	1
Conway, J. T.....	309
Roberson, J. H.....	1

?